

## Robyn Tice

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**From:** Don Kraher  
**Sent:** Thursday, May 28, 2020 12:46 PM  
**To:** Jewel Cannada-Wynn; Jared Moore; P.C. Wu; Sherri Myers; Andy Terhaar; Ann Hill; John Jerrals  
**Cc:** Elaine Mager; Sonja Gaines; Keith Wilkins; Dick Barker Jr; Ericka Burnett; Robyn Tice; jlittle@pnj.com  
**Subject:** FW: Council Questions Re Streamline  
**Attachments:** Streamline Boats Permits & MSDSs.pdf

Council President and Members of City Council

Please find attached additional responses to questions regarding Streamline Boats of NW Florida.

Respectfully,

**Don Kraher**  
**Council Executive**  
Office of the City Council  
222 W. Main Street  
Pensacola, FL 32502  
(850) 435-1686 – Office  
(850) 384-6363 – Cell



*City of Pensacola*

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**From:** Amy Miller <AMiller@cityofpensacola.com>  
**Sent:** Thursday, May 28, 2020 12:13 PM  
**To:** Don Kraher <DKraher@cityofpensacola.com>  
**Cc:** Dick Barker Jr <RBarker@cityofpensacola.com>; Keith Wilkins <KWilkins@cityofpensacola.com>  
**Subject:** Council Questions Re Streamline

Don – Attached find the final portion of the response to Councilwoman Myers' information requests regarding Streamline Boats. Please distribute accordingly. At this point, staff has address all questions raised by Council to date.

Thanks,  
A.

**Amy Miller**  
*Port Director*  
Visit us at <https://www.portofpensacola.com>  
700 S. Barracks St.  
Pensacola, FL 32502

850.436.5070 (office)

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## MEMORANDUM



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Date: May 27, 2020

To: Council President Jewel Cannada-Wynn  
Councilwoman Sherri Myers  
Members of City Council

From: Amy Miller, Port Director

A handwritten signature in blue ink, appearing to read "Ash", enclosed within a blue circular scribble.

Re: Proposed Streamline Boats lease requested documents

President Cannada-Wynn, Councilwoman Myers, and members of Council,

As part of her information request with respect to the above-referenced proposed lease agreement, Councilwoman Myers requested copies of Streamline Boats' existing permits as well as the Material Safety Data Sheets (MSDSs) for the chemicals utilized in their boat manufacturing process. In response to that request, attached you will find the following items: Industrial Waste Permit issued by Miami-Dade County, Air Permit issued by Miami-Dade County, MSDS for polyester resin, MSDS for HAP33 White 2144, and MSDS for acetone.

To provide some context relative to the transport, storage and use of the above-listed chemicals, as previously described Streamline Boats proposes to operate a custom boat manufacturing facility at the port. This is not mass production. The boats are custom-made, to order. Currently total annual production at Streamline's Hialeah facility is less than 30 boats per year. On this basis, even when factoring in their growth projections, the volume of materials transported to and stored at the port facility for the foreseeable future will be relatively small.

It is worth noting that these chemicals are all readily available in the retail and commercial markets at any local hardware store, marine supply, or big-box home improvement retailer; are utilized daily by boat builders and marine repair facilities throughout the region, including Patti Marine & Shipyard and Offshore Inland Marine; and are routinely transported in quantities both large and small to and from all of these locations.

Representatives of Streamline Boats will be available during the City Council meeting on Thursday to provide more specificity and answer any other questions you may have about their proposed operations. Until then, if any of you have any additional questions, please feel free to call me at 850-572-1959.



**Regulatory and Economic Resources**  
 Environmental Resources Management  
 701 NW 1st Court • 7th Floor  
 Miami, Florida 33136-3912  
 T 305-372-6600 F 305-372-6893

miamidade.gov

**Permit No:** IW5-023490-2019/2020 (REG)-KASO  
**Permit Issued To:** STREAMLINE PERFORMANCE BOATS, CORP.  
**Facility Location:** 7435 W 20 AVE  
 HIALEAH, FL 33014-

**Contact Name/Address:**  
**Attn:** Pedro Garcia  
 STREAMLINE PERFORMANCE BOATS, CORP.  
 7435 W 20 AVE  
 HIALEAH, FL 33014-

### INDUSTRIAL WASTE 5 ANNUAL OPERATING PERMIT

#### DESCRIPTION OF FACILITY/EQUIPMENT

This document, issued under the provisions of Chapter 24, Miami-Dade County (Dade County Environmental Protection Ordinance), shall be valid from May 01, 2019 through April 30, 2020. The above named permittee, is hereby authorized to operate the pollution control facility at the above location which consists of the following:

Boat manufacturer, using fiberglass resins, solvents, hardeners, acetone, with or without engine service; served by sanitary sewer.

This facility is subject to conditions listed below and in the following pages (if any) of this permit.

#### SPECIFIC CONDITIONS

1. All wastes from facility operation shall be stored or disposed of in compliance with county, state and federal regulations.
2. Facility shall have the ability to contain and collect any spill and properly dispose of contaminated materials. Accidental spills must be reported to this department within 24 hours at (305)372-6955.
3. When allowed, waste oil, transmission fluids, brake fluids, solvents, sludge's, chemicals, or other industrial wastes must be collected and placed in a secure location. These materials shall be disposed of in an approved manner by Miami-Dade County permitted haulers only.
4. Receipts from all industrial waste and/or wastewater disposal must be maintained at the business and be available for inspection by Department personnel. Receipts shall contain clear information as to the name of the hauler, type of material transported, and quantity of material picked up. Records shall be kept for a period of three years.
5. Hazardous wastes (if allowed) shall not be stored longer than ninety (90) days, for GENERATORS, or one hundred eighty (180) days for SMALL QUANTITY GENERATORS, containers must be clearly labeled, and must have the date of the first day of storage marked on the outside of the container.
6. Receipts from all hazardous waste disposal (manifests), with data on volume, name of hauler and final destination, shall be maintained on file in order at the facility and be made available to this Department's representatives upon request. Records shall be kept for a period of three years.
7. All above ground tanks and storage areas for hazardous materials and hazardous waste (if allowed) must have secondary containment. Design and construction must have departmental approval.
8. Solvent recovery "still bottoms" are hazardous wastes and must be treated as such.

Lee N. Hefty, Assistant Director  
 Department of Regulatory and Economic Resources,  
 Environmental Resources Management



Permit No: AP-003594-2019/2020 (DGP)-GEN  
 Permit Issued To: STREAMLINE PERFORMANCE BOATS CORP.  
 Facility Location: 7711 W 22 AVE  
 HIALEAH, FL 33016-

Contact Name/Address:  
 Attn: Pedro Garcia  
 STREAMLINE PERFORMANCE BOATS CORP.  
 7435 W 20 AVE  
 HIALEAH, FL 33014-

### AIR POLLUTION ANNUAL OPERATING PERMIT

#### DESCRIPTION OF FACILITY/EQUIPMENT

This document, issued under the provisions of Chapter 24, Miami-Dade County (Dade County Environmental Protection Ordinance), shall be valid from 18-SEP-2019 through 30-JUN-2020. The above named permittee, is hereby authorized to operate the pollution control facility at the above location which consists of the following:

Streamline Performance Boats Corp. is a boat manufacturer that uses resin, gelcoat and acetone. Fiberglass resin and gelcoat are manually applied on molds. Once dried the parts are removed from the molds and the boat is assembled on site. The facility produces between 12 and 15 boats per year in sizes of 26, 34 or 45 feet. Their estimated annual emissions are as follows: Estimated actual emissions: VOC 2.397 TPY, Styrene 1.954 TPY. Estimated potential emissions: VOC 10.500 TPY, Styrene 8.560 TPY. Additional specific conditions can be found under FDEP facility ID#0251448.

This facility is subject to conditions listed below and in the following pages (if any) of this permit.

#### SPECIFIC CONDITIONS

1. The permittee shall not cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than 20 percent opacity.
2. The permittee shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. An objectionable odor is any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.
3. The permittee shall determine the VOC and HAP content of all materials and solvents used, shall monitor the usage of such materials, and shall maintain appropriate documentation such as usage records, purchase receipts, disposal manifests, and Material Safety Data Sheets (MSDS) to verify compliance. Such records shall be maintained for a period of three (3) years and shall be readily available for inspection upon request by Department personnel.
4. The combined quantity of styrene-containing resin and gelcoat used shall not exceed 76,000 pounds (thirty-eight (38) tons) in any consecutive twelve (12) months.
5. The owner or operator shall maintain records to document the quantity of resin and gelcoat used on a monthly basis. The owner or operator shall retain these records, available for DERM inspection for a period of at least five (5) years.

#### GENERAL CONDITIONS

Lee N. Hefty, Assistant Director  
 Department of Regulatory and Economic Resources,  
 Environmental Resources Management

## Section 1. Identification

**Product name** H834-RAA-35  
**Product type** Polyester Resin Solution  
**Chemical family** Aromatic.  
**SDS No.** NA-1504:426 (Version: 4.1)

### Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Used in the manufacture of thermoset plastic parts.  
**Uses advised against** No additional information.

### Supplier's details

<u>United States:</u>	<u>Canada:</u>
AOC	AOC
955 Highway 57 East	38 Royal Road
Collierville, TN 38017	Guelph, Ontario Canada N1H 1G3
Phone Number: (901) 854-2800	Phone Number: (519) 821-5180
Hours: 8AM-5pm (Central Time) Mon-Fri	Hours: 8am-5pm (Eastern) Mon-Fri
E-Mail: aoc.sds@aocresins.com	
Website: www.aocresins.com	

### Emergency telephone number

CHEMTREC Within USA and Canada	+1 (800) 424-9300	CCN1023
CHEMTREC Outside USA and Canada	+1 (703) 527-3887	
CANUTEC Within Canada	+1 (613) 996-6666	

## Section 2. Hazards identification

### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

FLAMMABLE LIQUIDS – Category 3 – H226  
 ACUTE TOXICITY (Inhalation) – Category 4 – H332  
 SKIN IRRITATION – Category 2 – H315  
 EYE IRRITATION – Category 2A – H319  
 CARCINOGENICITY – Category 2 – H351  
 REPRODUCTIVE TOXICITY – Category 2 – H361d  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) – Category 3 – H335  
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) – Category 1 – H372  
 ASPIRATION HAZARD – Category 1 – H304

### GHS label elements

#### Hazard pictograms



### Signal word

Danger

### Hazard statements

H226: Flammable liquid and vapor.  
 H332: Harmful if inhaled.  
 H319: Causes serious eye irritation.  
 H315: Causes skin irritation.  
 H361d: Suspected of damaging the unborn child.  
 H351: Suspected of causing cancer.  
 H304: May be fatal if swallowed and enters airways.  
 H335: May cause respiratory irritation.  
 H372: Causes damage to organs through prolonged or repeated exposure if inhaled. (hearing organs, kidneys)

### Precautionary statements

#### General

## Section 2. Hazards identification

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

### Prevention

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting/material-handling equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P233: Keep container tightly closed.

P271: Use only outdoors or in a well-ventilated area.

P260: Do not breathe vapor or mist.

P270: Do not eat, drink or smoke when using this product.

P264: Wash hands thoroughly after handling.

### Response

P314: Get medical attention if you feel unwell.

P308+P313: IF exposed or concerned: Get medical attention.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312: Call a POISON CENTER or physician if you feel unwell.

P370+P378: In case of fire: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331: Do NOT induce vomiting.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P362+P364: Take off contaminated clothing and wash it before reuse.

P332+P313: If skin irritation occurs: Get medical attention.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical attention.

P391: Collect spillage.

### Storage

P405: Store locked up.

P403+P235: Store in a well-ventilated place. Keep cool.

P233: Keep container tightly closed.

### Disposal

P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Hazards not otherwise classified

None known.

## Section 3. Composition/information on ingredients

### Substance/mixture

Mixture.

Ingredient name	CAS number	%
styrene	100-42-5	34.1
methanol	67-56-1	0.4
cobalt bis(2-ethylhexanoate)	136-52-7	≤0.3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

#### Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. If irritation persists, get medical attention.

#### Inhalation

Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

#### Skin contact

## Section 4. First aid measures

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. If irritation persists, seek medical attention. Wash contaminated clothing before reuse. Clean shoes thoroughly before reuse.

### Ingestion

Wash out mouth with water. Remove dentures if any. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Seek immediate medical attention.

### Most important symptoms/effects, acute and delayed

#### Eye contact

Causes serious eye irritation.

#### Inhalation

Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness.

#### Skin contact

Causes skin irritation.

#### Ingestion

Irritating to mouth, throat and stomach.

### Over-exposure signs/symptoms

#### Eye contact

Adverse symptoms may include the following: pain or irritation, watering, redness.

#### Inhalation

Adverse symptoms may include the following: respiratory tract irritation, coughing.

#### Skin contact

Adverse symptoms may include the following: irritation, redness.

#### Ingestion

Adverse symptoms may include the following: Irritating to mouth, throat and stomach.

### Indication of immediate medical attention and special treatment needed, if necessary

#### Notes to physician

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

#### Unsuitable extinguishing media

Do not use water jet.

#### Specific hazards arising from the chemical

Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

#### Hazardous thermal decomposition products

Decomposition products may include the following materials: carbon dioxide, carbon monoxide nitrogen oxides

#### Special protective actions for fire-fighters

Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

#### Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.



## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation.

#### For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. See also the information in "For non-emergency personnel".

#### Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

#### Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

#### Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Segregate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Refer to the product label and/or technical data sheet for further information.

## Section 8. Exposure controls/personal protection

### Control parameters

### Occupational exposure limits

<b>Ingredient name</b>	<b>Exposure limits</b>
styrene	<b>ACGIH TLV (United States, 3/2019). Absorbed through skin.</b> TWA: 20 ppm 8 hours. STEL: 40 ppm 15 minutes. <b>OSHA PEL Z2 (United States, 2/2013).</b> TWA: 100 ppm 8 hours. CEIL: 200 ppm AMP: 600 ppm 5 minutes. <b>NIOSH REL (United States, 10/2016).</b> TWA: 50 ppm 10 hours. TWA: 215 mg/m <sup>3</sup> 10 hours. STEL: 100 ppm 15 minutes.

## Section 8. Exposure controls/personal protection

methanol	STEL: 425 mg/m <sup>3</sup> 15 minutes. <b>ACGIH TLV (United States, 3/2019). Absorbed through skin.</b> TWA: 200 ppm 8 hours. TWA: 262 mg/m <sup>3</sup> 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m <sup>3</sup> 15 minutes. <b>NIOSH REL (United States, 10/2016). Absorbed through skin.</b> TWA: 200 ppm 10 hours. TWA: 260 mg/m <sup>3</sup> 10 hours. STEL: 250 ppm 15 minutes. STEL: 325 mg/m <sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 5/2018).</b> TWA: 200 ppm 8 hours. TWA: 260 mg/m <sup>3</sup> 8 hours.
cobalt bis(2-ethylhexanoate)	<b>OSHA PEL (United States).</b> TWA: 0.1 mg/m <sup>3</sup> <b>ACGIH TLV (United States, 3/2019). Skin sensitizer. Inhalation sensitizer.</b> TWA: 0.02 mg/m <sup>3</sup> , (as Co) 8 hours.

### Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Individual protection measures

#### Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

#### Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.



## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Color</b>	Clear to Amber.
<b>Odor</b>	Aromatic.
<b>Odor threshold</b>	0.01 - 0.1 ppm ( <i>Styrene</i> )
<b>pH</b>	<i>Not applicable.</i>
<b>Melting point</b>	-23.8°F / -30.6°C ( <i>Styrene</i> )
<b>Boiling point</b>	293°F / 145°C ( <i>Styrene</i> )
<b>Flash point</b>	88°F / 31°C ( <i>Styrene</i> )
<b>Evaporation rate</b>	< 1 (Butyl acetate = 1)
<b>Flammability (solid, gas)</b>	<i>Not applicable.</i>
<b>Lower and upper explosive (flammable) limits</b>	<b>Lower:</b> 1.1% <b>Upper:</b> 6.1% ( <i>Styrene</i> )
<b>Vapor pressure</b>	5.0 mm Hg@ 68°F / 20°C ( <i>Styrene</i> )
<b>Vapor density</b>	3.6 (Air = 1) ( <i>Styrene</i> )

## Section 9. Physical and chemical properties

Relative density	1.1 (Water = 1)
Solubility	Slight.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	914°F / 490°C (Styrene)
Decomposition temperature	Not available.
Viscosity	Not available.
Molecular weight	1,000 to 15,000

## Section 10. Stability and reactivity

### Reactivity

No specific test data related to reactivity available for this product or its ingredients.

### Chemical stability

The product is stable. Stable under recommended storage and handling conditions (see Section 7).

### Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

### Incompatible materials

Reactive or incompatible with the following materials: oxidizing materials

### Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Ingredient name	Result	Species	Dose	Exposure
styrene	LC50 Inhalation Gas.	Rat	2770 ppm	4 hours
	LC50 Inhalation Vapor	Rat	11800 mg/m <sup>3</sup>	4 hours
	LC50 Inhalation Vapor	Rat	5634.2 ppm	4 hours
methanol	LD50 Oral	Rat	2650 mg/kg	-
	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Mouse	7300 mg/kg	-
cobalt bis(2-ethylhexanoate)	LD50 Oral	Rat	5600 mg/kg	-
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	1.22 g/kg	-

#### Irritation/Corrosion

Ingredient name	Result	Species	Score	Exposure	Observation
styrene	Eyes - Mild irritant	Human	-	50 ppm	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-

#### Sensitization

May cause sensitization by skin contact.

#### Carcinogenicity

##### Classification

Ingredient name	ACGIH	IARC	NTP
styrene	-	2A	Reasonably anticipated to be a human carcinogen.
cobalt bis(2-ethylhexanoate)	-	2B	Reasonably anticipated to be a human carcinogen.

## Section 11. Toxicological information

- 1) **Negative Study** A published study concluded that the mechanism for producing cancer in mice exposed to styrene is not applicable in human metabolism. (June 2013 Pharmacology & Toxicology 66 (2013))
- 2) **Negative Study** A recent update to an extensive study of reinforced plastic workers from 1948-1977 concluded that there was no coherent evidence that styrene exposure increased risk of cancer (March 2013 Epidemiology Vol. 24 Issue 2)
- 3) **Positive Study** Styrene induced pulmonary toxicity and carcinogenicity in mice was shown to be caused by a metabolite of styrene, probably styrene oxide. (Dec.2001 Toxicology Vol.169 Issue 2)

### Mutagenicity

No known significant effects or critical hazards.

### Reproductive toxicity

Suspected of damaging the unborn child.

### Teratogenicity

No known significant effects or critical hazards.

### Specific target organ toxicity (single exposure)

May cause respiratory irritation.

### Specific target organ toxicity (repeated exposure)

A study of long term effects of workers exposed to styrene levels in the range of 25-35 ppm, 8 hour TWA, indicated a possible mild hearing loss.

### Aspiration hazard

May be fatal if swallowed and enters airways.

### Potential acute health effects

#### Eye contact

Causes serious eye irritation.

#### Inhalation

Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness.

#### Skin contact

Causes skin irritation.

#### Ingestion

Irritating to mouth, throat and stomach.

### Symptoms related to the physical, chemical and toxicological characteristics

#### Eye contact

Adverse symptoms may include the following: pain or irritation, watering, redness.

#### Inhalation

Adverse symptoms may include the following: respiratory tract irritation, coughing.

#### Skin contact

Adverse symptoms may include the following: irritation, redness.

#### Ingestion

Adverse symptoms may include the following: Irritating to mouth, throat and stomach.

## Section 12. Ecological information

### Toxicity

Ingredient name	Result	Species	Exposure
styrene	Acute EC50 1400 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 720 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 4700 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 52 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 4020 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 63 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
methanol	Acute EC50 16.912 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - Danio rerio - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

## Section 12. Ecological information

Ingredient name	LogP <sub>ow</sub>	BCF	Potential
styrene	0.35	13.49	low
methanol	-0.77	<10	low
cobalt bis(2-ethylhexanoate)	-	15600	high

### Mobility in soil

#### Soil/water partition coefficient (K<sub>oc</sub>)

Not available.

#### Other adverse effects

No known effect according to our database.

## Section 13. Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid disposal. Attempt to use product completely in accordance with intended use. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

### Special precautions

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

### DOT /TDG / IMDG/IMO / ICAO/IATA and National regulations.

UN number	UN1866
Proper shipping name	Resin Solution
Transport hazard class(es)	3



Packing group III

Additional information US regulations require the reporting of spills when the amount exceeds the Reportable Quantity (RQ) for specific components of this material. See CERCLA in Section 15, Regulatory Information, for the Reportable Quantities.

IMDG **Emergency schedules (EmS):** F-E, S-E  
**Remarks:** FP- 31°C

IATA No additional information.

Environmental hazards Marine pollutant: No.

Special precautions for user **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

### International regulations lists

United States inventory (TSCA 8b)	All components are listed or exempted.
Australia (AICS)	All components are listed or exempted.
Canada (DSL)	All components are listed or exempted.
China (IECSC)	Not determined.
Europe (EINECS)	Not determined.
New Zealand (NZIoC)	Not determined.
Philippines (PICCS)	Not determined.
Japan	<b>Japan inventory (ENCS):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.

## Section 15. Regulatory information

Malaysia (EHS Register)	Not determined.
Republic of Korea (KECI)	All components are listed or exempted.
Taiwan (CSNN)	All components are listed or exempted.

### U.S. Federal regulations

#### SARA 311/312

Per the June 13, 2016 Federal Register notice, EPA harmonized the EPCRA 311/312 hazard categories with the 2012 OSHA hazard communication standard for classifying and labeling of chemicals (i.e. GHS). Please refer to Section 2 of the SDS to identify the appropriate hazard categories for reporting purposes.

#### SARA 313

	Ingredient name	CAS number
Form R - Reporting requirements	styrene	100-42-5
	cobalt bis(2-ethylhexanoate)	136-52-7

**CERCLA RQ -** styrene - 1000 lbs. (453.6 kg)

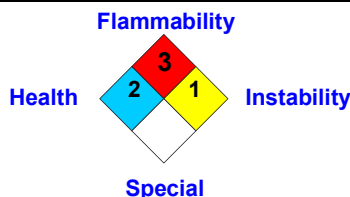
### State regulations

#### California Prop. 65

**WARNING:** This product can expose you to chemicals including Styrene, which is known to the State of California to cause cancer, and Methanol, Ethylene Glycol, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## Section 16. Other information

### National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

### History

Date of issue	03/01/2020
Date of previous issue	05/15/2019
Version	4.1
Prepared by	AOC Corporate Regulatory Affairs
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

Indicates information that has changed from previously issued version.

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# Safety Data Sheet

FOR INDUSTRIAL USE ONLY

HAP33 WHITE 2144

Revision Date 6/18/2018

## 1. Identification

**Product Name:** HAP33 WHITE 2144  
ArmorFlex

**SDS Number:** 99FWP729

**Product Use:** Industrial

**Manufacturer, Importer, Supplier:** Polynt Composites USA, Inc.  
99 East Cottage Avenue  
Carpentersville IL 60110  
E-Mail: MSDS@polynt.com

**Telephone:** For Emergency Transportation Information  
CHEMTREC US Domestic (800) 424-9300  
CHEMTREC International (703) 527-3887

For additional health, safety or regulatory information, call (847) 836-3659

## 2. Hazard identification

**EMERGENCY OVERVIEW:** Risk of serious damage to the lungs (by aspiration). May cause sensitization by inhalation and skin contact.

### GHS Classification

Acute Tox. 4 Inhalation, Carc. 2, Eye Irrit. 2, Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, STOT RE 1, STOT SE 3 NE, STOT SE 3 RTI

### Symbol(s) of Product



### Signal Word

Danger

### Possible Hazards

28% of the mixture consists of ingredient(s) of unknown acute toxicity

### GHS HAZARD STATEMENTS

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.



STOT, repeated exposure, category 1	H372	Causes damage to organs through prolonged or repeated exposure.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Skin Irritation, category 2	H315	Causes skin irritation.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

**GHS LABEL PRECAUTIONARY STATEMENTS**

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378	In case of fire: Use dry chemical, foam, water spray to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to in accordance with local/regional/national/international regulations.
P201	Obtain special instructions before use.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P321	Specific treatment (see ... on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P281	Use personal protective equipment as required.

**GHS SDS PRECAUTIONARY STATEMENTS**

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting/.../ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P270	Do not eat, drink or smoke when using this product.
P363	Wash contaminated clothing before reuse.

**3. Composition/Information on ingredients**

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>
STYRENE MONOMER	100-42-5	28.20
TITANIUM DIOXIDE	13463-67-7	20 - 30
TALC (HYDROUS MAGNESIUM SILICATE)	14807-96-6	5.0 - 10
METHYL METHACRYLATE	80-62-6	1.0-5.0
LIGHT AROMATIC NAPHTHA	64742-95-6	0.1-1.0
COBALT 2-ETHYLHEXANOATE, 12% COBALT	136-52-7	0.1-1.0

**4. First-aid measures**

**FIRST AID - EYE CONTACT:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**FIRST AID - INGESTION:** Do NOT induce vomiting. If ingested, consult a physician. Aspiration hazard if swallowed - can enter lungs and cause damage.

**FIRST AID - INHALATION:** Give oxygen or artificial respiration if needed. Remove person to fresh air. If signs/symptoms continue, get medical attention.

**FIRST AID - SKIN CONTACT:** Wash with soap and water. Remove contaminated clothes and shoes. Get medical attention if irritation develops.

## 5. Fire-fighting measures

### Extinguishing Media:

**Suitable** Carbon Dioxide, Dry Chemical, Foam, Water Fog  
**Not suitable** Water Jet

**SPECIAL FIREFIGHTING PROCEDURES:** Use full protective clothing. Use a properly-fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Vapors may be ignited by heat, pilot lights, other flames and ignition sources. Self-accelerating decomposition may occur if the specific control temperature is not maintained. Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.). Cool containers / tanks with water spray. Do not use a solid water stream as it may scatter and spread fire. In case of fire: Use carbon dioxide, dry chemical, foam, water fog to extinguish.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** No Information

## 6. Accidental release measures

**ENVIRONMENTAL MEASURES:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Prevent entry into waterways, sewers, basements or confined areas.

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Do not flush into surface water or sanitary sewer system. Use non-sparking tools and equipment. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. Evacuate personnel to safe areas. Remove all sources of ignition. Ensure adequate ventilation. Avoid breathing vapors or mists.

**PRECAUTIONARY MEASURES:** No Information

## 7. Handling and storage



**HANDLING:** Keep away from heat and sources of ignition. Ground/bond container and equipment. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapors, mist or gas. Use only in well-ventilated areas. Wash contaminated clothing before reuse.

**STORAGE:** Store and dispose according to national, state and local regulations. Keep container closed when not in use. Store contents under 100F (37.8C). Store drums with bung in the upright position. Electrical equipment must be grounded; suitable for the classification of the area where it is installed and conform to the National Electric Code (see NFPA 70). Store in cool well ventilated space away from incompatible materials.

**HYGIENIC PRACTICES:** General industrial hygiene practice. Wash hands before eating, drinking, or smoking. When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing.

**WORK PRACTICES:** Put on appropriate personal protective equipment. Wash hands after handling chemicals and before eating, drinking, or smoking. Read and understand entire SDS before handling chemical.

**SPECIAL HANDLING PROCEDURES:** Put on appropriate personal protective equipment. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.

## 8. Exposure controls/personal protection

### Ingredients with Occupational Exposure Limits

Chemical Name	ACGIH TLV-TWA	ACGIH-TLV STEL	OSHA PEL-TWA	OSHA CEILING
STYRENE MONOMER	20 ppm	40 ppm	100 ppm	200 ppm
TITANIUM DIOXIDE	10 mg/m <sup>3</sup>	N.E.	15 mg/m <sup>3</sup>	N.E.
TALC (HYDROUS MAGNESIUM SILICATE)	2 mg/m <sup>3</sup>	N.E.	N.E.	N.E.
METHYL METHACRYLATE	50 ppm	100 ppm	100 ppm	N.E.
LIGHT AROMATIC NAPHTHA	N.E.	N.E.	N.E.	N.E.
COBALT 2-ETHYLHEXANOATE, 12%	N.E.	N.E.	N.E.	N.E.
COBALT				

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation  
Sk = Skin Sensitizer N.E. = Not Established

### Personal Protection



**RESPIRATORY PROTECTION:** Use a properly-fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. When concentrations exceed the exposure limits specified, use of a NIOSH-approved dust, mist and fume respirator is recommended. Where the protection factor of the respirator may be exceeded, use of a full facepiece, supplied air, or Self Contained Breathing Apparatus (SCBA) may be necessary.



**SKIN PROTECTION:** Wear suitable protective equipment. Wear chemical resistant footwear and clothing such as gloves, an apron or a whole body suit as appropriate.



**EYE PROTECTION:** Ensure that eyewash stations and safety showers are close to the workstation location. Safety glasses with side-shields. Wear chemical-resistant glasses and/or goggles and a face shield when eye and face contact is possible due to splashing or spraying of material.



**OTHER PROTECTIVE EQUIPMENT:** Use good hygiene practices. Wash face and hands before eating, drinking, and smoking. Eye wash and safety showers should be readily available.



**HYGIENIC PRACTICES:** General industrial hygiene practice. Wash hands before eating, drinking, or smoking. When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing.

## 9. Physical and chemical properties

Color:	White	Physical State:	Liquid
Odor:	Moderate aromatic	Odor Threshold:	Not Available
Density, g/cm <sup>3</sup> :	1.351	pH:	Not Available
Freeze Point, °C:	Not Available	Viscosity:	Not Available
Solubility in Water:	Insoluble	Partition Coefficient, n-octanol/ water:	Not Available
Decomposition Temp., °C:	Not Available	Flash Point, °C / F°	26 / 79
Boiling Range, °C:	100	Explosive Limits, vol%:	Not Available
Vapor Pressure:	Not Available	Auto-ignition Temp., °C:	Not Available

(See "Other information" Section for abbreviation legend)

## 10. Stability and reactivity

**STABILITY:** Stable under normal conditions. The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerise with heat evolution.

**CONDITIONS TO AVOID:** Keep product away from heat, sparks, pilot lights, static electricity, and open flame. Avoid improper addition of promotor and/or catalyst. Avoid direct contact of MEKP catalyst with accelerator. If adding accelerator like cobalt drier, mix accelerator with base material before adding catalyst. Burning may produce obnoxious and toxic fumes. Hazardous polymerization may occur.

**INCOMPATIBILITY:** Strong oxidizing and reducing agents. Strong acids. Free radical initiators. Copper. Metal salts.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None under normal use.

## 11. Toxicological information



### Practical Experiences

**EFFECT OF OVEREXPOSURE - EYE CONTACT:** Exposure may cause mild irritation. Symptoms may include stinging, tearing, and redness.

**EFFECT OF OVEREXPOSURE - INGESTION:** May cause severe gastrointestinal disturbance with headache, nausea, vomiting and diarrhea.

**EFFECT OF OVEREXPOSURE - INHALATION:** Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membranes). Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effect, such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Prolonged, repeated or high exposures may cause central nervous system depression leading to headaches, nausea, drowsiness, dizziness, and possibly narcosis. In extreme cases, may cause loss of consciousness. Ingestion of large doses may cause headaches, dizziness, nausea, vomiting, and drowsiness. Irritating to skin.

**EFFECT OF OVEREXPOSURE - SKIN CONTACT:** Prolonged skin contact may defat the skin and produce dermatitis.

**EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS:** Repeated or prolonged exposure may cause central nervous system damage. Prolonged skin contact may defat the skin and produce dermatitis. Prolonged or repeated exposure may cause liver and kidney effects.

**CARCINOGENICITY:** This product contains styrene classified by the International Agency for Research on Cancer (IARC) as 2A carcinogen.

This product contains styrene, which is listed in the NTP report on carcinogens.

This product may contain Titanium Dioxide, which is listed by IARC as possibly carcinogenic to humans (Group 2B). This listing is based on inadequate evidence of carcinogenicity in humans and sufficient evidence in experimental animals. This classification is relevant when exposed to titanium dioxide in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities.

**PRIMARY ROUTE(S) OF ENTRY:** Eye Contact, Ingestion, Inhalation, Skin Contact

#### Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Name according to EEC</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
100-42-5	STYRENE MONOMER	1000 mg/kg Rat	N.I.	11.7 mg/L Rat
13463-67-7	TITANIUM DIOXIDE	>10000 mg/kg Rat	N.I.	N.I.
80-62-6	METHYL METHACRYLATE	8420 - 10000 mg/kg Rat	5000 - 7500 mg/kg Rabbit	78000 mg/l Rat
64742-95-6	LIGHT AROMATIC NAPHTHA	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.I.
136-52-7	COBALT 2-ETHYLHEXANOATE, 12% COBALT	N.I.	>5000 mg/kg Rabbit	N.I.

N.I. = No Information

## 12. Ecological information

**ECOLOGICAL INFORMATION:** Ecological evaluation of this material has not been performed; however, do not allow the product to be released to the environment without governmental approval/permits. Discharge into the environment must be avoided.

## 13. Disposal considerations



**DISPOSAL METHOD:** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should always comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

## 14. Transport information

**SPECIAL TRANSPORT PRECAUTIONS:** No Information

**International transport regulations**

Regulatory Information:	UN/NA Number	Proper Shipping Name	Classes/ *PG	Reportable Quantity (RQ)
CFR	UN1866	RESIN SOLUTION	Class 3 PGIII	
IMO/IMDG	UN1866	RESIN SOLUTION	Class 3 PGIII	
IATA	UN1866	RESIN SOLUTION	Class 3 PGIII	

**15. Regulatory information****U.S. Federal Regulations:****CERCLA - SARA Hazard Category**

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

<u>Chemical Name</u>	<u>CAS-No.</u>
STYRENE MONOMER	100-42-5
METHYL METHACRYLATE	80-62-6

**SARA SECTION 313:**

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
STYRENE MONOMER	100-42-5
METHYL METHACRYLATE	80-62-6
ALUMINA (ALUMINUM OXIDE)	1344-28-1

**TOXIC SUBSTANCES CONTROL ACT:**

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) regulated components exist in this product.

**CALIFORNIA PROPOSITION 65 CARCINOGENS**

Warning: This product contains a chemical known to the state of California to cause cancer.

<u>Chemical Name</u>	<u>CAS-No.</u>
STYRENE MONOMER	100-42-5
TITANIUM DIOXIDE	13463-67-7
ETHYLBENZENE	100-41-4

**CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS**

Warning: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

<u>Chemical Name</u>	<u>CAS-No.</u>
METHYL ALCOHOL	67-56-1

**International Regulations**

<b>Chemical Inventories</b>	Australia inventory (AICS)	Not listed
	Canada inventory (DSL)	Not listed
	Canada inventory (NDSL)	Not listed
	Japan Inventory (ENCSC)	Not listed
	China Inventory (IECSC)	Not listed
	Korea Inventory (KECI)	Not listed
	New Zealand (NZIoC)	Not listed
	Philippines (PICCS)	Not listed
	United States Inventory (TSCA 8b)	All components are listed or exempted

## 16. Other information

**Revision Date:** 6/18/2018 **Supersedes Date:** 6/5/2018  
**Reason for revision:** Updated SDS Information  
**Datasheet produced by:** Regulatory Department

### HMIS Ratings:

<b>Health:</b>	2*	<b>Flammability:</b>	3	<b>Reactivity:</b>	2	<b>Personal Protection:</b>	N.I.	<b>Chronic Rating:</b>	*
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Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined, N.I. - No Information

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# SAFETY DATA SHEET

## 1. Identification

**Product identifier** ACETONE  
**Other means of identification**  
**CAS number** 67-64-1  
**Recommended use** ALL PROPER AND LEGAL PURPOSES  
**Recommended restrictions** None known.  
**Manufacturer/importer/Supplier/Distributor information**  
**Manufacturer**  
**Company name** Brenntag Pacific Inc.  
**Address** 10747 Patterson Place  
 Santa Fe Springs, CA 90670  
**Telephone** 562-903-9626  
**E-mail** Not available.  
**Emergency phone number** 800-424-9300 CHEMTREC

## 2. Hazard(s) identification

**Physical hazards** Flammable liquids Category 2  
**Health hazards** Serious eye damage/eye irritation Category 2A  
 Specific target organ toxicity, single exposure Category 3 narcotic effects  
**Environmental hazards** Not classified.  
**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger  
**Hazard statement** Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.

### Precautionary statement

**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.  
**Response** If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.  
**Storage** Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.  
**Hazard(s) not otherwise classified (HNOC)** Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.  
**Supplemental information** 100% of the mixture consists of component(s) of unknown acute inhalation toxicity.

## 3. Composition/information on ingredients

### Substances

Chemical name	Common name and synonyms	CAS number	%
ACETONE		67-64-1	100

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Alcohol resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

**7. Handling and storage**

**Precautions for safe handling**

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

**Conditions for safe storage, including any incompatibilities**

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection**

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Material	Type	Value
ACETONE (CAS 67-64-1)	PEL	2400 mg/m3 1000 ppm

**US. ACGIH Threshold Limit Values**

Material	Type	Value
ACETONE (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Material	Type	Value
ACETONE (CAS 67-64-1)	TWA	590 mg/m3
		250 ppm

**Biological limit values**

**ACGIH Biological Exposure Indices**

Material	Value	Determinant	Specimen	Sampling Time
ACETONE (CAS 67-64-1)	25 mg/l	Acetone	Urine	*

\* - For sampling details, please see the source document.

**Appropriate engineering controls** Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

**Individual protection measures, such as personal protective equipment**

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

**Eye/face protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**Other** Wear appropriate chemical resistant clothing.

**Respiratory protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties**

**Appearance**

**Physical state** Liquid.  
**Form** Liquid.  
**Color** CLEAR COLORLESS

**Odor** PUNGENT

**Odor threshold** Not available.

**pH** 7

**Melting point/freezing point** -139 °F (-95 °C)

**Initial boiling point and boiling range** 132.89 °F (56.05 °C) 101.325 kPa

**Flash point** -4.0 °F (-20.0 °C)

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** Not available.

**Vapor density** Not available.

**Relative density** Not available.

**Solubility(ies)**

**Solubility (water)** Miscible

**Partition coefficient (n-octanol/water)** -0.24

<b>Auto-ignition temperature</b>	869 °F (465 °C)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	6.59 lbs/gal
<b>Dynamic viscosity</b>	0.32 mPa.s (68 °F (20 °C))
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Flammable IB estimated
<b>Heat of combustion (NFPA 30B)</b>	27.7 kJ/g
<b>Molecular formula</b>	C3-H6-O
<b>Molecular weight</b>	58.08 g/mol
<b>Oxidizing properties</b>	Not oxidizing.
<b>Percent volatile</b>	100 %
<b>Specific gravity</b>	0.79
<b>Surface tension</b>	23.7 mN/m (68 °F (20 °C))
<b>VOC</b>	100 %

**10. Stability and reactivity**

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

**11. Toxicological information**

**Information on likely routes of exposure**

<b>Inhalation</b>	May cause drowsiness and dizziness. Headache. Nausea, vomiting.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

**Information on toxicological effects**

<b>Acute toxicity</b>	Not known.
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.

**Respiratory or skin sensitization**

<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Not classifiable as to carcinogenicity to humans.

- IARC Monographs. Overall Evaluation of Carcinogenicity**  
Not listed.
- OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**  
Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	May cause drowsiness and dizziness.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Further information</b>	Acetone has increased the liver toxicity of chemicals, such as, carbon tetrachloride, chloroform and trichloroethylene. Acetone has also increased the lung toxicity of styrene and the toxicity of acrylonitrile and 2,5 hexanedione in laboratory animals. Acetone also appears to inhibit the metabolism and elimination of ethyl alcohol, thereby potentiating its toxicity. Acetone can increase or decrease the toxicity of 1,2-dichlorobenzene, depending on the concentration of Acetone.

**12. Ecological information**

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results
ACETONE (CAS 67-64-1)		
<b>Aquatic</b>		
Crustacea	EC50 Water flea ( <i>Daphnia magna</i> )	10294 - 17704 mg/l, 48 hours
Fish	LC50 Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )	4740 - 6330 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

Partition coefficient n-octanol / water (log Kow)  
-0.24

**Mobility in soil** No data available.

**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.

**13. Disposal considerations**

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**US RCRA Hazardous Waste U List: Reference**

ACETONE (CAS 67-64-1)

U002

<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. Transport information****DOT**

<b>UN number</b>	UN1090
<b>UN proper shipping name</b>	ACETONE
<b>Transport hazard class(es)</b>	
Class	3
Subsidiary risk	-
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>ERG number</b>	127

Transport information on packaging may be different from that listed. Transportation information on packaging may be different from that listed.

DOT



**15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

ACETONE (CAS 67-64-1) Listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Flammable (gases, aerosols, liquids, or solids)  
Serious eye damage or eye irritation  
Specific target organ toxicity (single or repeated exposure)  
Hazard not otherwise classified (HNOC)

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

ACETONE (CAS 67-64-1) 6532

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

ACETONE (CAS 67-64-1) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

ACETONE (CAS 67-64-1) 6532

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

ACETONE (CAS 67-64-1) Low priority

**US state regulations**

**California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

ACETONE (CAS 67-64-1)

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Toxic Chemical Substances (TCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	07-25-2016
<b>Revision date</b>	03-23-2019
<b>Version #</b>	25
<b>HMIS® ratings</b>	Health: 2 Flammability: 3 Physical hazard: 0
<b>NFPA ratings</b>	Health: 1 Flammability: 3 Instability: 0
<b>Disclaimer</b>	While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.



## SAFETY DATA SHEET

## 1. Identification

**Product Name:** Acetone  
**Product Code:** 01180  
**SDS Date:** 11/11/2015  
**Use:** Industrial

Chemisphere Corporation  
2101 Clifton Ave  
St. Louis, MO 63139

**General Information: 314-644-1300**  
**CHEMTREC: 800-424-9300**

## 2. Hazard(s) identification

## GHS Classification

Flammable liquids, (Category 2)  
Eye irritation, (Category 2A)  
Specific target organ toxicity following single exposure, (Category 3)

## Pictogram



**Signalword** Danger

## Hazard Statement

Highly flammable liquid and vapor  
Causes serious eye irritation  
May cause drowsiness or dizziness

## Precautionary

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Wash hands thoroughly after handling. Wear eye protection/face protection. Avoid breathing vapors. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire consider carbon dioxide, water spray mist or foam, dry chemical. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/ container to an approved waste disposal plant.

**Hazards not otherwise classified:** Not available

## 3. Composition/information on ingredients

Name	CAS	Concentration
Acetone	67-64-1	100



## 4. First-aid measures

<b>General Advice</b>	Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.
<b>If Inhaled</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>In Case of Skin Contact</b>	Wash off with soap and plenty of water. Consult a physician.
<b>In Case of Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>If Swallowed</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling

### Indications of any immediate medical attention and special treatment needed

No data available

## 5. Fire-fighting measures

<b>Extinguishing Media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Special Hazards</b>	No data available
<b>Advice for firefighters</b>	Wear self-contained breathing apparatus for firefighting if necessary.
<b>Further Information</b>	Use water spray to cool unopened containers.

## 6. Accidental release measures

### Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

## 7. Handling and storage

<b>Safe Handling</b>	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.
<b>Safe Storage</b>	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Flammable liquids



**8. Exposure controls/personal protection**

Name		CAS	
Acetone		67-64-1	
OSHA TWA	OSHA STEL	ACGIH TWA	ACGIH STEL
1000 ppm	Not Available	500 ppm	750 ppm

**Engineering Control**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Eye/Face Protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin Protection**

Handle with butyl rubber gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory Protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of Environmental Exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**9. Physical and chemical properties**

<b>Appearance</b>	Acetone	Colorless, clear, liquid
<b>Odor</b>	Acetone	No Data Available
<b>Odor Threshold</b>	Acetone	No data available
<b>pH</b>	Acetone	No data available
<b>Melting/Freezing Point</b>	Acetone	-94C (-137F)
<b>Initial Boiling Point/Range</b>	Acetone	56C (133F) at 1,013 hPa (760 mmHg)
<b>Flash Point</b>	Acetone	-16.99C (1.42F) - closed cup
<b>Evaporation Rate</b>	Acetone	No data available
<b>Flammability</b>	Acetone	No data available
<b>Upper Explosion Limit</b>	Acetone	13%



<b>Lower Explosion Limit</b>	Acetone	2%
<b>Vapor Pressure</b>	Acetone	245.3 hPa (184.0 mmHg) at 20C (68F)
<b>Vapor Density</b>	Acetone	No data available
<b>Relative Density</b>	Acetone	0.791 g/mL at 25C (77F)
<b>Water Solubility</b>	Acetone	completely miscible
<b>Partition Coefficient</b>	Acetone	log Pow: -0.24
<b>Auto Ignition Temperature</b>	Acetone	465.0C (869F)
<b>Decomposition Temperature</b>	Acetone	No data available
<b>Viscosity</b>	Acetone	No data available

## 10. Stability and reactivity

<b>Reactivity</b>	No data available
<b>Chemical Stability</b>	Stable under recommended storage conditions.
<b>Possibility of Hazardous Reactions</b>	Vapors may form explosive mixture with air.
<b>Conditions to Avoid</b>	Heat, flames, and Sparks
<b>Incompatible materials</b>	Bases, Oxidizing agents, Reducing agents, Acetone reacts violently with phosphorous oxychloride.
<b>Hazardous Decomposition Products</b>	No data available

## 11. Toxicological information

Name	CAS
Acetone	67-64-1
LD50 Oral - Rat - 7,060 mg/kg	
LC50 Inhalation - Rat - 10 h - 20000 ppm	
Dermal: No data available	
<b>Skin corrosion/irritation</b>	Result: No skin irritation - 24 h
<b>Serious eye damage/eye irritation</b>	Result: Mild eye irritation - 24 h
<b>Respiratory or skin sensitization</b>	No data available
<b>Germ cell mutagenicity</b>	No data available
<b>Carcinogenicity</b>	Not identified as probable, possible or confirmed human carcinogen by IARC, NTP, or OSHA
<b>Reproductive</b>	Reproductive toxicity - Human - female - Oral Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on



Newborn: Drug dependence.

**Additional information** Central nervous system depression, narcosis, Damage to the heart.

## 12. Ecological information

Name	CAS	Toxicity
Acetone	67-64-1	Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 5,540 mg/l - 96 h, Toxicity to daphnia and LC50 - Daphnia magna (Water flea) - 8,800 mg/l - 48 h

## 13. Disposal considerations

Dispose of contents/container in accordance with local/regional/national/international regulations.

## 14. Transport information

<b>Proper Shipping Name</b>	Acetone
<b>Hazard Class</b>	3
<b>Identification Number</b>	UN1090
<b>Packing Group</b>	II
<b>Label</b>	Flammable

## 15. Regulatory information

Name	CAS
Acetone	67-64-1
<b>SARA 302/304</b>	No components were identified
<b>SARA 313</b>	No components were identified
<b>CERCLA</b>	RQ=5,000 lbs
<b>SARA 311/312</b>	Immediate (Acute) Health Hazard, Fire Hazard
<b>PROP 65</b>	No components were identified
This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.	

**16. Other information, including date of preparation or last revision****SDS Date:** 11/11/2015**Disclaimer:**

The information and recommendations contained in the Safety Data Sheet (SDS) are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of this date hereof. Chemisphere, however, makes no representation as to the completeness or accuracy thereof, and information is supplied upon the express condition that the persons receiving the information will be required to make their own determination as to its suitability for their purposes prior to use. In no event will Chemisphere be responsible for any damages of any nature whatsoever resulting from the use of, reliance upon, or the misuse of this information. User assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER NATURE, ARE MADE BY CHEMISPHERE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS. The information as supplied herein is simply to be informative and intended solely to alert the user of the substance which is the subject matter of this SDS. The ultimate compliance with federal, state or local regulations concerning the use of this compound, or compliance with respect to product liability, rests solely upon the purchaser thereof. This information relates to the material designated and may not be valid for such material used in combination with any other materials nor in any process.

## Safety Data Sheet Acetone

Version 2.5

Revision Date: 03/22/2018

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** : Acetone

#### Recommended use of the chemical and restrictions on use

Recommended use : Solvent.

#### Manufacturer or supplier's details

**Company** : Nexeo Solutions, LLC.  
**Address** : 3 Waterway Square Place Suite 1000  
The Woodlands, TX. 77380  
United States of America

#### Emergency telephone number:

Health North America: 1-855-NEXEO4U (1-855-639-3648)

Health International: 1-855-NEXEO4U (1-855-639-3648)

Transport North America: CHEMTREC (1-800-424-9300)

**Additional Information:** : Responsible Party: Product Safety Group  
E-Mail: [msds@nexeosolutions.com](mailto:msds@nexeosolutions.com)  
SDS Requests: 1-855-429-2661  
SDS Requests Fax: 1-281-500-2370  
Website: [www.nexeosolutions.com](http://www.nexeosolutions.com)

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquids : Category 2

Eye irritation : Category 2A

Specific target organ toxicity  
- single exposure : Category 3 (Central nervous system)

#### GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

Precautionary statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces.  
No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting/ equip-

**Safety Data Sheet**  
**Acetone**

Version 2.5

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ment.  
 P242 Use only non-sparking tools.  
 P243 Take precautionary measures against static discharge.  
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
 P264 Wash skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.  
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
**Storage:**  
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
 P403 + P235 Store in a well-ventilated place. Keep cool.  
 P405 Store locked up.  
**Disposal:**  
 P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

**Hazardous components**

CAS-No.	Chemical Name	Weight %
67-64-1	Acetone	90 - 100

Any Concentration shown as a range is due to batch variation.

**SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.  
 Show this safety data sheet to the doctor in attendance.  
 Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.  
 If unconscious place in recovery position and seek medical advice.

## Safety Data Sheet Acetone

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- In case of skin contact : If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Do not induce vomiting without medical advice.

---

### SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon oxides
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
For safety reasons in case of fire, cans should be stored separately in closed containments.  
Use a water spray to cool fully closed containers.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.  
Use personal protective equipment.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

## Safety Data Sheet

### Acetone

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- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

#### SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.  
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
- Advice on safe handling : Avoid formation of aerosol.  
Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Take precautionary measures against static discharges.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Container may be opened only under exhaust ventilation hood.  
Open drum carefully as content may be under pressure.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : No smoking.  
Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
67-64-1	Acetone	TWA	250 ppm	ACGIH
		STEL	500 ppm	ACGIH
		TWA	250 ppm	NIOSH REL



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			590 mg/m <sup>3</sup>	
		TWA	1,000 ppm 2,400 mg/m <sup>3</sup>	OSHA Z-1
		TWA	750 ppm 1,800 mg/m <sup>3</sup>	OSHA P0
		STEL	1,000 ppm 2,400 mg/m <sup>3</sup>	OSHA P0

#### Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

#### Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

---

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear, Colorless

Odour : sweet, aromatic

Odour Threshold : 62 ppm

pH : 7 @ 20 - 25 °C (68 - 77 °F)

Freezing Point (Melting point/freezing point) : -95.35 - -93.9 °C (-139.63 - -137.0 °F)

## Safety Data Sheet

### Acetone

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Boiling Point (Boiling point/boiling range)	: 56 - 56.05 °C (133 - 132.89 °F)
Flash point	: -18 - -17 °C (-0.40 - 1 °F) Method: closed cup
Evaporation rate	: 5.6 - 6.06 (Butyl Acetate = 1)
Flammability (solid, gas)	: No data available
Upper explosion limit	: 14.3 %(V)
Lower explosion limit	: 2.5 %(V)
Vapour pressure	: 108 - 185 mmHg
Relative vapour density	: > 2 @ 20 - 25 °C (68 - 77 °F) (Air = 1.0)
Relative density	: 0.786 - 0.792 @ 20 - 25 °C (68 - 77 °F) Reference substance: (water = 1)
Density	: 0.79 - 0.792 g/cm <sup>3</sup> @ 20 °C (68 °F)
Solubility(ies)	
Water solubility	: completely miscible @ 20 °C (68 °F)
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: -0.24 - -0.23
Auto-ignition temperature	: 465 - 560 °C
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: 0.32 - 0.33 mPa.s @ 20 °C (68 °F)
Viscosity, kinematic	: 0.38 mm <sup>2</sup> /s @ 40 °C (104 °F)
Surface tension	: 22.8 mN/m

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#### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reac-	: Vapours may form explosive mixture with air.

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tions

Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Rubber Plastics Bases Oxidizing agents Amines
Hazardous decomposition products	: Carbon oxides

---

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Serious eye damage/eye irritation

##### Components:

##### 67-64-1:

Species: Rabbit  
Result: Irritating to eyes.  
Exposure time: 24 h

#### Carcinogenicity

##### IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

##### OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

##### NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

##### ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

#### STOT - single exposure

##### Components:

##### 67-64-1:

Exposure routes: Inhalation  
Target Organs: Central nervous system  
Assessment: May cause drowsiness or dizziness., The substance or mixture is classified as

## Safety Data Sheet Acetone

Version 2.5

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specific target organ toxicant, single exposure, category 3 with narcotic effects.

### Further information

#### Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Concentrations substantially above the TLV value may cause narcotic effects.

Solvents may degrease the skin.

---

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

No data available

### Persistence and degradability

No data available

### Bioaccumulative potential

No data available

### Mobility in soil

No data available

### Other adverse effects

#### Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.  
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact NEXEO's Environmental Services Group at 800-637-7922.

Dispose of in accordance with all applicable local, state and

## Safety Data Sheet

### Acetone

Version 2.5

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federal regulations.  
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact NEXEO's Environmental Services Group at 800-637-7922.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

#### SECTION 14. TRANSPORT INFORMATION

**DOT (Department of Transportation):**  
UN1090, ACETONE, 3, II

**IATA (International Air Transport Association):**  
UN1090, ACETONE, 3, II

**IMDG (International Maritime Dangerous Goods):**  
UN1090, ACETONE, 3, II, Flash Point:-18 - -17 °C(-0.40 - 1 °F)

#### SECTION 15. REGULATORY INFORMATION

**WHMIS Classification** : B2: Flammable liquid  
D2B: Toxic Material Causing Other Toxic Effects

#### EPCRA - Emergency Planning and Community Right-to-Know Act

##### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Acetone	67-64-1	5000	5000
**Benzene	71-43-2	10	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## Safety Data Sheet

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#### Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

67-64-1 Acetone

#### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

71-43-2 \*\*Benzene

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

71-43-2 \*\*Benzene

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

#### US State Regulations

##### Massachusetts Right To Know

67-64-1	Acetone	90 - 100 %
71-43-2	**Benzene	0 - 0.005 %

##### Pennsylvania Right To Know

67-64-1	Acetone	90 - 100 %
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##### New Jersey Right To Know

67-64-1	Acetone	90 - 100 %
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##### California Prop 65

	WARNING! This product contains a chemical known to the State of California to cause cancer.
71-43-2	**Benzene
	WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.
71-43-2	**Benzene

#### The components of this product are reported in the following inventories:

TSCA	: On TSCA Inventory
DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PHIL	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

# Safety Data Sheet

## Acetone

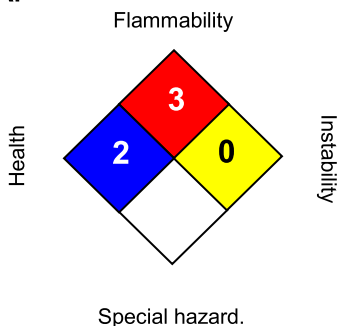
Version 2.5

Revision Date: 03/22/2018

**Special Notes:** : \*\* Other substances in the product which may present a health or environmental hazard.

### SECTION 16. OTHER INFORMATION

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>3</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 =Extreme, \* = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by NEXEO™ Solutions EHS Product Safety Department (1-855-429-2661) MSDS@nexeosolutions.com.

**Revision Date** : 03/22/2018

**Legacy SDS:** : R0004335, 140000002808

**Material number:**

16127340, 16121880, 16119795, 16119046, 16119001, 16117147, 16113324, 16111293, 16111229, 16109639, 16104184, 16045424, 16034875, 16066700, 16066699, 16066718, 16066717, 16101394, 16098884, 16075697, 16071303, 16070561, 16070557, 16069569, 16055833, 16055832, 16055831, 16055830, 16055829, 16062035, 16053090, 16050725, 16050368, 16049710, 16046507, 16045896, 16040423, 16038301, 16024443, 16024442, 16017790, 772814, 772813, 770579, 746703, 743460, 731755, 722683, 716725, 714790, 714016, 53967, 143817, 699233, 694280, 669662, 657544, 640730, 632517, 632516, 622972, 610607, 602401, 590044, 588482, 579567, 577332, 570345, 554132, 554043, 554368, 554299, 554204, 554084, 554042, 556643, 546857, 508583, 69081, 102957, 52701, 86730, 86576, 85462, 86731, 70348, 70194, 86057, 69078, 53968, 53814, 85456, 167020, 158363, 107921, 70017, 52704, 70353, 53820, 53637

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency

## Safety Data Sheet

### Acetone

Version 2.5

Revision Date: 03/22/2018

NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		





## Univar USA Inc Safety Data Sheet

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SDS No:

Version No:

Order No:

3075 Highland Pkwy, Ste 200, Downers Grove, IL 60515  
(425) 889 3400

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Emergency Assistance

For emergency assistance involving chemicals call  
Chemtrec - (800) 424-9300



Univar  
3075 Highland Pkwy STE 200  
Downers Grove, IL 60515  
425-889-3400

## SAFETY DATA SHEET

### 1. Identification

**Product identifier:** ~ACETONE

**Other means of identification**

**Synonyms:** Dimethylketone  
**CAS NUMBERS:** 67-64-1  
**SDS number:** 000100000097

**Recommended use and restriction on use**

**Recommended use:** Reserved for industrial and professional use.

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor Information**

Univar  
3075 Highland Pkwy STE 200  
Downers Grove, IL 60515  
425-889-3400

**Emergency telephone number:**For emergency assistance Involving chemicals

call CHEMTREC day or night at: 1-800-424-9300. CHEMTREC INTERNATIONAL Tel# 703-527-3887

### 2. Hazard(s) identification

**Hazard Classification**

**Physical Hazards**

Flammable liquids Category 2

**Health Hazards**

Specific Target Organ Toxicity - Single Exposure Category 3

Serious Eye Damage/Eye Irritation Category 2A

**Label Elements**

**Hazard Symbol**

Version: 1.2  
Revision Date: 06/26/2018



**Signal Word**

Danger

**Hazard Statement**

Highly flammable liquid and vapor.  
Causes serious eye irritation.  
May cause drowsiness or dizziness.

**Precautionary Statements**

**Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting/] equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves/eye protection/face protection.

**Response**

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Storage**

Store in a closed container. Store in well-ventilated place. Store in a dry place.

Version: 1.2  
Revision Date: 06/26/2018



**Disposal**

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification**

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

**3. Composition/information on ingredients**

**Substances**

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Acetone		67-64-1	99 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition Comments:**

The components are not hazardous or are below required disclosure limits.

**4. First-aid measures**

**General information:**

Get medical advice/attention.

**Ingestion:**

DO NOT induce vomiting. Get medical attention immediately. Never give liquid to an unconscious person.

**Inhalation:**

Move to fresh air. If breathing is difficult, give oxygen. Perform artificial respiration if breathing has stopped. Get medical attention.

**Skin Contact:**

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Eye contact:**

If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

**Most important symptoms/effects, acute and delayed**

**Symptoms:**

No data available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:**

Get medical attention if symptoms occur.

Version: 1.2  
Revision Date: 06/26/2018



**5. Fire-fighting measures**

**General Fire Hazards:** Fight fire from a protected location. Wear self-contained breathing apparatus and protective clothing.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Use: Alcohol resistant foam. Carbon dioxide or dry powder.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Vapors are heavier than air and may spread near ground to sources of ignition.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Keep unauthorized personnel away.

**Methods and material for containment and cleaning up:** All equipment used when handling the product must be grounded. Eliminate sources of ignition. Absorb spillage with non-combustible, absorbent material.

**Notification Procedures:** Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

**Environmental Precautions:** Avoid release to the environment. Do not contaminate water sources or sewer.

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**7. Handling and storage**

**Precautions for safe handling:** Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Take precautionary measures against static discharges. Flammable/combustible - Keep away from oxidizers, heat and flames.

**Conditions for safe storage, including any incompatibilities:** Store in a well-ventilated place. Store in a cool place.

**8. Exposure controls/personal protection**

**Control Parameters**  
**Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Acetone	TWA	750 ppm 1,800 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	STEL	1,000 ppm 2,400 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL	5,900 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	590 µg/m3	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	ST ESL	2,500 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	AN ESL	250 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (02 2013)
	Ceiling	3,000 ppm	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	TWA PEL	500 ppm 1,200 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (02 2012)
	STEL	750 ppm 1,780	US. California Code of Regulations,

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		mg/m3	Title 8, Section 5155. Airborne Contaminants (02 2012)
	STEL	750 ppm	US. ACGIH Threshold Limit Values (03 2013)
	TWA	500 ppm	US. ACGIH Threshold Limit Values (03 2013)
	TWA	200 ppm	US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values (03 2013)
	STEL	500 ppm	US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values (03 2013)
	REL	250 ppm	590 mg/m3 US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	1,000 ppm	2,400 mg/m3 US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	1,000 ppm	2,400 mg/m3 US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	750 ppm	1,800 mg/m3 US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

**Biological Limit Values**

Chemical Identity	Exposure Limit Values	Source
Acetone (acetone: Sampling time: End of shift.)	50 mg/l (Urine)	ACGIH BEL (03 2013)

**Appropriate Engineering Controls**

Use explosion-proof ventilation equipment to stay below exposure limits. Provide adequate ventilation. Provide eyewash station and safety shower.

**Individual protection measures, such as personal protective equipment**

**General information:**

Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. Use personal protective equipment as required.

**Eye/face protection:**

Wear safety glasses with side shields (or goggles).

**Skin Protection**

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**Hand Protection:** Chemical resistant gloves Chemical resistant gloves.  
**Other:** Chemical resistant clothing  
**Respiratory Protection:** In case of inadequate ventilation use suitable respirator.  
**Hygiene measures:** Avoid contact with eyes. Observe good industrial hygiene practices. When using do not smoke.

### 9. Physical and chemical properties

**Physical state:** liquid  
**Form:** liquid  
**Color:** Clear colorless  
**Odor:** Characteristic  
**Odor threshold:** No data available.  
**pH:** 7  
**Melting point/freezing point:** -94 °C  
**Initial boiling point and boiling range:** 56 °C  
**Flash Point:** -18 °C  
**Evaporation rate:** 5.6 n-butyl acetate=1  
**Flammability (solid, gas):** Flammable liquid  
**Upper/lower limit on flammability or explosive limits**  
**Flammability limit - upper (%):** 12.8 %(V)  
**Flammability limit - lower (%):** 2.96 %(V)  
**Explosive limit - upper (%):** No data available.  
**Explosive limit - lower (%):** No data available.  
**Vapor pressure:** 24.225 kPa (20 °C)  
**Vapor density:** 2 AIR=1  
**Relative density:** 0.79  
**Solubility(ies)**  
**Solubility in water:** (20 °C) Miscible with water.  
**Solubility (other):** The product is soluble in water.  
**Partition coefficient (n-octanol/water):** -0.24  
**Auto-ignition temperature:** No data available.  
**Decomposition temperature:** No data available.  
**Viscosity:** No data available.



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**Other information**

**Minimum ignition temperature:** 540 °C

**10. Stability and reactivity**

**Reactivity:** No data available.  
**Chemical Stability:** Stable  
**Possibility of hazardous reactions:** Stable  
**Conditions to avoid:** Keep away from heat, sparks and open flame.  
**Incompatible Materials:** Oxidizers, acids  
**Hazardous Decomposition Products:** Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

**11. Toxicological information**

**Symptoms related to the physical, chemical and toxicological characteristics**

**Ingestion:** No data available.  
**Inhalation:** No data available.  
**Skin Contact:** No data available.  
**Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**

**Product:** LC 50 (Rat): > 5,000 mg/kg Not classified for acute toxicity based on available data.

**Dermal**

**Product:** LD 50 (Rabbit): 5,000 mg/kg  
Not classified for acute toxicity based on available data.

**Inhalation**

**Product:** LC 50 (Rat, 4 h): 20 mg/l

**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** (Rabbit, 24 h): Moderate skin irritation

**Serious Eye Damage/Eye Irritation**

**Product:** Draize (Rabbit): Causes serious eye irritation.

**Respiratory or Skin Sensitization**

**Product:** Not a skin sensitizer.

**Carcinogenicity**

**Product:** No data available.

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**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** LC 50 (Oncorhynchus mykiss, 96 h): 5,540 mg/l

**Aquatic Invertebrates**

**Product:** EC 50 (Water flea (Daphnia magna), 48 h): 12,100 mg/l

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** EC 50 (Water Flea, 14 d): 3,020 mg/l

**Toxicity to Aquatic Plants**

**Product:** EC 50 (Algae (Pseudokirchneriella subcapitata), 96 h): > 100 mg/l

**Persistence and Degradability**

**Biodegradation**

**Product:** 91 % (28 d) Readily biodegradable

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<b>BOD/COD Ratio</b>	
<b>Product:</b>	No data available.
<b>Bioaccumulative potential</b>	
<b>Bioconcentration Factor (BCF)</b>	
<b>Product:</b>	Bioconcentration Factor (BCF): 0.69 Potential to bioaccumulate is low.
<b>Partition Coefficient n-octanol / water (log Kow)</b>	
<b>Product:</b>	Log Kow: -0.24
<b>Mobility in soil:</b>	No data available.
<b>Known or predicted distribution to environmental compartments</b>	
Acetone	No data available.

### 13. Disposal considerations

<b>Disposal instructions:</b>	Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Discharge, treatment, or disposal may be subject to national, state, or local laws.
<b>Contaminated Packaging:</b>	Since emptied containers retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

UN Number:	UN 1090
UN Proper Shipping Name:	ACETONE
Transport Hazard Class(es)	
Class:	3
Label(s):	3
Packing Group:	II
Marine Pollutant:	Not regulated.
Special precautions for user:	—

#### IMDG

UN Number:	UN 1090
UN Proper Shipping Name:	ACETONE
Transport Hazard Class(es)	
Class:	3
Label(s):	3
EmS No.:	F-E, S-D
Packing Group:	II
Marine Pollutant:	Not regulated.

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Special precautions for user: -

**IATA**

UN Number: UN 1090  
Proper Shipping Name: ACETONE  
Transport Hazard Class(es):  
Class: 3  
Label(s): 3  
Packing Group: II  
Environmental Hazards: Not regulated.  
Special precautions for user: -  
Other information  
Passenger and cargo aircraft: Allowed.  
Cargo aircraft only: Allowed.

**15. Regulatory information**

**US Federal Regulations US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

Acetone Reportable quantity: 5000 lbs.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Acute (Immediate)  Chronic (Delayed)  Fire  Reactive  Pressure Generating

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

Chemical Identity	RQ
Acetone	5000 lbs.

**SARA 311/312 Hazardous Chemical**

Chemical Identity	Threshold Planning Quantity
Acetone	500 lbs

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

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**US. New Jersey Worker and Community Right-to-Know Act**

Acetone Listed

**US. Massachusetts RTK - Substance List**

Acetone Listed

**US. Pennsylvania RTK - Hazardous Substances**

Acetone Listed

**US. Rhode Island RTK**

Acetone Listed

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<b>Inventory Status:</b> Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Mexico INSQ:	On or in compliance with the inventory
Ontario Inventory:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory.

**16. Other information, including date of preparation or last revision**

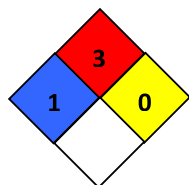
**HMIS Hazard ID**

Health	*	2
Flammability	3	
Physical Hazards	0	
<b>PERSONAL PROTECTION</b>		<b>B</b>

B - Safety Glasses & Gloves

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**NFPA Hazard ID**



	Flammability
	Health
	Reactivity
	Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

**Issue Date:** 06/26/2018  
**Revision Date:** No data available.  
**Version #:** 1.2  
**Further Information:** No data available.

Version: 1.2  
Revision Date: 06/26/2018



## Univar USA Inc Safety Data Sheet

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For Additional Information contact SDS Coordinator during business hours, Pacific time: (425) 889-3400

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# A. G. Layne, Inc.

## SAFETY DATA SHEET

**SDS Distribution: The information in this document should be made available to all who may handle the product.**

A.G. Layne, Inc. urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. It is the Buyer's/User's responsibility to ensure that his activities comply with all Federal, State, Provincial or Local laws. The information presented here pertains only to the product as shipped. The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. NO warranty or guarantee is expressed or implied regarding the accuracy of this data or the results to be obtained from the use of the product.

### Acetone

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**SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION**

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**Product ID :** Acetone  
**Product Name :** Acetone  
**Revision Date :** May 06, 2015 **Date Printed :** May 09, 2015  
**Version:** 1.0 **Supersedes Date :** N.A.  
**Manufacturer's Name :** A. G. Layne, Inc.  
**Address :** 4578 Brazil Street Los Angeles, CA, US, 90039  
**Emergency Phone :** Chemtrec-800-424-9300/703-527-3887  
**Information Phone :** 323-245-2345, 8am-5pm PST  
**Fax :**  
**Product/Recommended Uses:** Paint related, nail care, industrial solvent with a wide variety of applications

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**SECTION 2) HAZARDS IDENTIFICATION**

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**Classification:**

Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3  
Aspiration Hazard - Category 2  
Skin Irritation - Category 3  
Eye Irritation - Category 2A  
Flammable Liquids Category 1  
Acute toxicity Oral Category 5

**Pictograms:****Signal Word:**

Danger

**Hazardous Statements - Physical:**

Extremely flammable liquid and vapor

**Hazardous Statements - Health:**

May cause drowsiness or dizziness  
Maybe harmful if swallowed  
May be harmful if swallowed and enters airways  
Causes mild skin irritation  
Causes serious eye irritation

**Precautionary Statements - General:**

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.

**Precautionary Statements - Prevention:**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Use only non-sparking tools.  
Take action to prevent static discharges.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.

Wash with soap and water thoroughly after handling.

**Precautionary Statements - Response:**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse with water or shower.

In case of fire: Use DRY chemical, alcohol- resistant foam, water spray/fog or carbon-dioxide to extinguish.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Do NOT induce vomiting.

If skin irritation occurs: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

**Precautionary Statements - Storage:**

Keep cool.

Store in a well-ventilated place.

Store in a well-ventilated place. Store locked up.

Store locked up.

**Precautionary Statements - Disposal:**

Dispose of contents/container to disposal recycling center.

Waste management should be in full compliance with federal, state and local laws.

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**SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS**

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CAS	Chemical Name	% by Weight
0000067-64-1	ACETONE	100%
0000071-43-2	BENZENE	0 - 0.001 %

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**SECTION 4) FIRST-AID MEASURES**

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**Inhalation:**

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If victim is not breathing, call 911 and administer CPR as directed.

Eliminate all ignition sources if safe to do so.

**Skin Contact:**

Rinse/wash with lukewarm, gently flowing water (and mild soap) for 15-20 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

**Eye Contact:**

Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing. Take care not to rinse contaminated water into the unaffected eye or onto the face. Get immediate medical attention.

**Ingestion:**

Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position. Immediately call 911 POISON CENTER/doctor/. Immediately transport to the nearest medical facility for treatment.

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**SECTION 5) FIRE-FIGHTING MEASURES**

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**Suitable Extinguishing Media:**

Dry chemical, foam, carbon dioxide or fog is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

**Unsuitable Extinguishing Media:**

No data available.

**Specific Hazards in Case of Fire:**

No data available.

**Fire-fighting Procedures:**

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

**Special Protective Actions:**

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

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## SECTION 6) ACCIDENTAL RELEASE MEASURES

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**Emergency Procedure:**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

RELEASE CAN CAUSE FIRE/EXPLOSION. LIQUIDS/VAPORS MAY IGNITE.

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

**Recommended Equipment:**

Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

**Personal Precautions:**

Avoid breathing vapor. Avoid contact with skin, eye or clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use explosive proof equipment. Avoid inhalation of dust and contact with skin and eyes. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

**Environmental Precautions:**

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

**Methods and Materials for Containment and Cleaning up:**

Sand, clay and absorbent socks can be used to contain a spill.

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## SECTION 7) HANDLING AND STORAGE

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**General:**

Wash hands after use.

Do not get in eyes, on skin or on clothing.

Do not breathe vapors or mists.

Use good personal hygiene practices.

Eating, drinking and smoking in work areas is prohibited.

Remove contaminated clothing and protective equipment before entering eating areas.

Eyewash stations and showers should be available in areas where this material is used and stored.

**Ventilation Requirements:**

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

**Storage Room Requirements:**

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight, strong oxidizers and any incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.

Ground and bond containers and receiving equipment. Avoid static electricity by grounding.

Electrostatic charges may be generated during pumping. Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products.

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## SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION

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**Respiratory Protection:**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

Select a filter suitable for organic gases and vapors <boiling point,65 °C 149 °F> meeting EN371.

**Skin Protection:**

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

**Eye Protection:**

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

**Appropriate Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA-Tables-Z1,2,3	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
ACETONE	1000	2400			1			250	590			
BENZENE	1 (a) / 25ceiling		50(a) / 10minutes.		1	1		0.1c		1c		1

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH Carcinogen	ACGIH Notations	ACGIH TLV Basis
ACETONE	500	1188	750	1782	A4	A4; BEI	URT & eye irr; CNS impair; hematologic eff
BENZENE	0.5	1.6	2.5	8	A1	Skin; A1; BEI	Leukemia

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**SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES**

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**Physical and Chemical Properties**

Density	6.61 lb/gal
% Solids By Weight	0.00%
Density VOC	0.00 lb/gal
% VOC	0.00%
VOC Actual	0.00 lb/gal
Specific Gravity	0.79

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Appearance	Clear liquid
Odor Threshold	N/A
Odor Description	Chacteristic
pH	N/A
Water Solubility	N/A
Flammability	Flashpoint below 73 °F
Flash Point Symbol	N/A
Flash Point	-40 °F
Viscosity	N/A
Lower Explosion Level	N/A
Upper Explosion Level	N/A

Vapor Pressure	N/A
Vapor Density	N/A
Freezing Point	N/A
Melting Point	N/A
Low Boiling Point	N/A
High Boiling Point	N/A
Auto Ignition Temp	N/A
Decomposition Pt	0
Evaporation Rate	N/A
Coefficient Water/Oil	N/A
VOC Composite Partial Pressure	0.00279882 mmHg (Calculated @ 20 C/68 F)

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## SECTION 10) STABILITY AND REACTIVITY

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### Stability:

Stable under normal conditions of use.

### Conditions to Avoid:

Avoid heat, sparks, open flames and other ignition sources.

### Hazardous Reactions/Polymerization:

No data available.

### Incompatible Materials:

Strong oxidizing agents.

### Hazardous Decomposition Products:

Thermal decomposition may yield carbon dioxide and/or carbon monoxide.

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## SECTION 11) TOXICOLOGICAL INFORMATION

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### Acute toxicity:

Ingestion: May be harmful or fatal if swallowed.

### Skin Corrosion/Irritation:

Causes mild skin irritation

### Serious eye damage/irritation:

Causes serious eye irritation

### Germ cell mutagenicity:

No data available

### Respiratory/Skin Sensitization:

Slightly irritating to respiratory system.

### Carcinogenicity:

No data available

### Reproductive toxicity:

No data available

### Specific Target Organ Toxicity - Repeated Exposure:

No data available

### Specific Target Organ Toxicity - Single Exposure:

May cause drowsiness or dizziness

### Aspiration hazard:

May be harmful if swallowed and enters airways

0000067-64-1 ACETONE

LC50 (male rat): 30000 ppm (4-hour exposure); cited as 71000 mg/m3 (4-hour exposure) (29)  
LC50 (male mouse): 18600 ppm (4-hour exposure); cited as 44000 mg/m3 (4-hour exposure) (29)  
LD50 (oral, female rat): 5800 mg/kg (24)  
LD50 (oral, mature rat): 6700 mg/kg (cited as 8.5 mL/kg) (31)  
LD50 (oral, newborn rat): 1750 mg/kg (cited as 2.2 mL/kg) (31)  
LD50 (oral, mouse): 3000 mg/kg (32,unconfirmed)  
LD50 (dermal, rabbit): Greater than 16000 mg/kg cited as 20 mL/kg) (30)

0000071-43-2 BENZENE

LC50 (rat): 13,700 ppm (4 hour exposure) (26); 9,980 ppm (7 hour exposure) (13,200 ppm - equivalent 4 hour exposure) (18)  
LD50 (oral, rat): 930 mg/kg (19); 5,600 mg/kg (2); 11.4 ml/kg (10,032 mg/kg) (21)  
LD50 (oral, mouse): 4,700 mg/kg (11; unconfirmed)  
LD50 (skin, rabbit and guinea pig): Greater than 9,400 mg/kg (20)

**Potential Health Effects - Miscellaneous**

0000067-64-1 ACETONE

The following medical conditions may be aggravated by exposure: lung disease, eye disorders, skin disorders. Overexposure may cause damage to any of the following organs/systems: blood, central nervous system, eyes, kidneys, liver, respiratory system, skin.

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**SECTION 12) ECOLOGICAL INFORMATION**

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**Bio-accumulative Potential:**

No data available.

**Persistence and Degradability:**

No data available.

**Mobility in Soil:**

No data available.

**Toxicity:**

No data available

**Other adverse effects:**

No data available.

**Bio-accumulative Potential**

0000067-64-1 ACETONE

Does not bioaccumulate

**Persistence and Degradability**

0000067-64-1 ACETONE

91% readily biodegradable, Method: OECD Test Guideline 301B

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**SECTION 13) DISPOSAL CONSIDERATIONS**

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**Waste Disposal Method:**

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

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**SECTION 14) TRANSPORT INFORMATION**

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**U.S. DOT Information:**

UN1090, Acetone, 3, PG II

**Emergency Response Guide (ERG):**

Emergency Response Guide 127

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**SECTION 15) REGULATORY INFORMATION**

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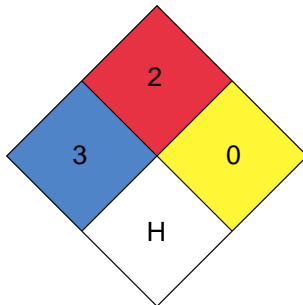
CAS	Chemical Name	% By Weight	Regulation List
0000067-64-1	ACETONE	98.000% - 100.000%	CERCLA,SARA312,VOC_exempt,TSCA,RCRA,OSHA
0000071-43-2	BENZENE	0.005%	CERCLA,SARA312,SARA313,VOC,IARCCarcinogen,TSCA,RCRA, OSHA Carcinogen,CA_TAC_TOX,CA_TAC_Carcinogen,CA_Carcinogen,NEI - National Emissions Inventory,CA_Prop65 - California Proposition 65,CA_Prop65_Type_Toxicity_Cancer - CA_Proposition65_Type_Toxicity_Cancer,CA_Prop65_Type_Toxicity_Develop - CA_Proposition65_Type_Toxicity_Developmental,CA_Prop65_Type_Toxicity_Male - CA_Proposition65_Type_Toxicity_Male,OSHA


## SECTION 16) OTHER INFORMATION

### General:

A.G. Layne, Inc. urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. It is the Buyer's/User's responsibility to ensure that his activities comply with all Federal, State, Provincial or Local laws. The information presented here pertains only to the product as shipped. The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. NO warranty or guarantee is expressed or implied regarding the accuracy of this data or the results to be obtained from the use of the product.

### HMIS



Chronic : 

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