CITY OF PENSACOLA ENVIRONMENTAL ADVISORY BOARD

Thursday, November 7, 2019 ~ 2:00 p.m. Vince Whibbs, Sr. Conference Room

AGENDA

- 1. Call to Order/Quorum
- Approval of Meeting Minutes—October 3, 2019
- 3. Presentation: Ms. Dory Larsen, Southern Alliance for Clean Energy
- 4. Board Member Comments/Updates:
 - a) 12th Avenue Tree Replacement and No Parking Enforcement—Kyle Kopytchak
 - b) Perdido Pensacola Bay Estuary Program—Michael Lynch
 - c) Criteria for Tree Fund Grant Proposals
 - d) Environmental Justice/Injustice—Calvin Avant
 - e) Water Quality of Bay/Gulf-Blaise Butts, Katie Fox
 - f) Sanders Beach and Bruce Beach Stormwater Drainage, Flooding/Toxin Issues in Tanyard—Gloria Horning
 - g) Environmental Impacts on Disenfranchised Communities—Gloria Horning
 - h) Renewable Energy Sources—Neil Richards, Robert Bennett
 - i) Stormwater Management—Katie Fox, Blaise Butts (Information attached from Member Butts)
- Old Business:
 - Referral from City Council—Amendment to the Code of the City of Pensacola -Land Development Code, Section 12-6 Tree/Landscape Regulations
 - b) Referral from City Council—Examine Chemicals Used on Athletic Fields and Parks in the City of Pensacola
- 6. New Business
- 7. Reports and Announcements
- 8. Public Comments—Open Forum
- 9. Adjourn

NOTE: AS PART OF THE PROTECT OUR COAST – DRIVE ELECTRIC PROJECT OF THE SOUTHERN ALLIANCE FOR CLEAN ENERGY(SACE) AN ELECTRIC CAR DEMONSTRATION HAS BEEN ARRANGED TO TAKE PLACE IN THE VISITOR PARKING AREA AT PENSACOLA CITY HALL ON THURSDAY, NOVEMBER 7 FROM 12:30 P.M. – 2 P.M.

ONE OR MORE MEMBERS OF THE PENSACOLA CITY COUNCIL AND THE ENVIRONMENTAL ADVISORY BOARD MAY BE PRESENT AT THIS DEMONSTRATION PRIOR TO THE REGULAR MEETING OF THE ENVIRONMENTAL ADVISORY BOARD.

The City of Pensacola adheres to the Americans with Disabilities Act and will make reasonable accommodations for access to City services, programs and activities. Please call 435-1606 or TDD 435-1666 for further information. Requests must be made at least 48 hours in advance of the event in order to allow the City time to provide the requested services.

CITY OF PENSACOLA ENVIRONMENTAL ADVISORY BOARD MEETING MINUTES

Thursday, October 3, 2019 ~ 2:00 p.m.

Members Present:

Neil Richards, Chair, Michael Lynch, Dr. Gloria Horning, Calvin

Avant, Kyle Kopytchak, Blase Butts

Members Absent:

Bob Bennett, Katie Fox

 Call to Order/Quorum: The meeting was called to order by Chair Richards. A quorum was established.

Approval of Meeting Minutes—September 5, 2019

Motion made by Member Horning to approve the minutes, seconded by Member Avant and was unanimously carried.

3. Presentation: Jim Trifilio, Executive Director Pensacola/Perdido Bays Estuary Program

Jim Trifilio made a verbal presentation on the Pensacola/Perdido Bays Estuary Program, which is currently funded under a \$2 million EPA grant with Escambia County the host for the program. Out of the Clean Water Act in the late 1980's, 28 National Estuary Programs were formed around the country. They were considered estuaries of national significance. The closest one to Pensacola is Mobile Bay. There are four in Florida—Tampa Bay, Indian River, Sarasota and Charlotte Harbor. Tampa Bay's program is one of the most successful. They looked at old pre-development photographs of sea grass coverage in Tampa Bay. If there is good sea grass coverage more than likely there will be good water quality. Their goal was to bring back the sea grass coverage to the pre-development level within 20 years. They met their target 4 years early.

It is important to realize that estuary programs are not regulatory programs. They can't make anybody do anything. They don't pass ordinances, they don't pass laws. They are consensus builders. They will work with the community, not just the environmental, but also the economic community to get everybody on board so that the programs can become successful. They develop a comprehensive conservation and management plan (CCMP). They look at existing data and reports and look at the different critical problems and what the stressors/pollutants are within the watershed. The watersheds that feed into the estuaries are very large. A total of about 8,000 square miles of watershed feeds into the Perdido/Pensacola Bays estuary. Anything that happens in those watersheds can impact the water quality of the estuary and ultimately the Gulf of Mexico.

The CCMP will identify a handful of priorities, major issues that need to be addressed is these estuaries. Most issues are the same in Florida; septic tank

issues, unpaved roads, stormwater issues, agricultural and silviculture impacts and suspended solids in the water. The next step in the plan is how to deal with them. Each year, based on the plan a work plan is developed. These programs work on grant money. The National programs have the luxury of getting Congressional funding every year. The Pensacola/Perdido Bays program doesn't have that. They have \$2 million. If they don't find additional funding, whether it's grants, or local communities and counties, that will be the end of the program.

It is a very cooperative program. The Pensacola/Perdido Bays program has a technical advisory committee and an education outreach committee for K-12 and are in the process of forming an economic committee. The community needs to address these programs as necessary for quality of life, place and economic development.

Comments were made by Member Horning on the availability of data and the lack of enforcement of existing regulations in the local community.

Mr. Trifilio indicated that the estuary program is not regulatory in nature. That is not their role. They will look at what is available and will determine what gaps there are in the knowledge base. If they know there is a problem and they don't have enough data to resolve that problem, then it will be identified as a gap and they will do more work in those areas.

Member Avant expressed his concerns with the Wedgewood Community, the Rolling Hills landfill and the environmental effects it has on Marcus Bayou and Crescent Lake and ultimately Perdido River. He inquired whether there was a member on the policy board representing environmental justice.

Mr. Trifilio stated that there were environmental justice issues throughout the country. There are aspects of the CCMP plans that will address those types of issues. This is a community and region project. This has to be stakeholder driven, a community and regional driven venture.

The Policy Board of the Pensacola/Perdido Bays Estuary program was put together by an interlocal agreement. They are mainly elected officials. The public is encouraged to attend any one of the committee meetings to voice their concerns and those committees will get the information to the policy board. Participation is encouraged.

Further discussion occurred between Board members and Mr. Trifilio on estuary programs, testing, care of infrastructure and getting cooperation from various entities that may be contributing to the problem as well as developing partnerships with industries to possibly utilize materials they can no longer use in environmental

ways that would be beneficial in the community, i.e. turning unwanted concrete into fishing reefs as an example.

Ms. Mary Gutierrez encouraged participation in the meetings with new blood and new perspectives.

Chair Richards mentioned the attendance at a recent City Council meeting of participants in the 350 youth organization expressing their concerns about climate change and urging the Council to support the Climate Change Task Force's recommendations. It would be beneficial to have them attend the estuary program meetings to voice their concerns.

Mr. Trifilio indicated that was one of the goals of the outreach committee to get their involvement. That is where it starts. As far as the meetings are concerned, there is always a call in number. If you are unable to get to the meetings, you can call in.

4. Board Member Comments/Updates:

- a) 12th Avenue Tree Replacement and No Parking Enforcement—Kyle Kopytchak Member Kopytchak voiced his frustration in no action being taken on the recommendation to place signs in the tree tunnel.
- b) Perdido Pensacola Bay Estuary Program—Michael Lynch

Chair Richards announced that Jim Trifilio submitted his letter of resignation at the October 2 meeting. They will be searching for another Executive Director. Member Lynch indicated that a lot of things were discussed; however they did not decide on anything

c) Criteria for Tree Fund Grant Proposals

Chair Richards deferred this item to discuss under Old Business item 5 a).

d) Environmental Justice/Injustice—Calvin Avant

Member Avant indicated he is setting up individual meetings with Council Member Cannada-Wynn and Council Member Myers to talk to them about Marcus Bayou and some of the things that are going on. He will be attending the University of Florida's stormwater solutions workshop this evening. He spoke to Rodney Jones, President of the NAACP about bringing 10 members of his Youth Council to the Climate Change Conference in New Orleans on November 14-16 sponsored by the Deep South Center for Environmental Justice and Texas Southern University.

e) Water Quality of Bay/Gulf-Blaise Butts, Katie Fox

Member Butts reported 4900 pounds of garbage has been picked up at the beaches. With the ones that Ocean Hour does, they are up to 16,000 pounds. Member Kopytchak made comments about information provided to the Board from the Parks and Recreation department.

f) Sanders Beach and Bruce Beach Stormwater Drainage, Flooding/Toxin Issues in Tanyard—Gloria Horning

Member Butts reported that on September 24, Bayou Texar, Bayou Grande and Bayou Chico had health advisories posted. Member Horning reported the lack of rain has helped with the stormwater issues at Sanders Beach and the Tanyard.

- g) Environmental Impacts on Disenfranchised Communities—Gloria Horning No update given
- h) Renewable Energy Sources—Neil Richards, Robert Bennett No update given
- i) Stormwater Management—Katie Fox No update given

Old Business:

a) Referral from City Council—Amendment to the Code of the City of Pensacola - Land Development Code, Section 12-6 Tree/Landscape Regulations

Chair Richards announced that the Planning Board would be holding a public workshop on October 24 in the Hagler/Mason Conference Room. Member Bennett submitted a proposed recommendation and will be carried over to next month when he will be able to be present. He asked if the Board had any further comments about how the grant request process could be smoothed out since the grant requests would come before the Board. He envisioned having recommendations on the tree species that would be guidance for the Board, that there would be a fairly short list of species that the Board could recommend to the City Council for that grant money as well as how the neighborhood or association applying for the grant would take care of irrigation and watering for the first year.

b) Referral from City Council—Examine Chemicals Used on Athletic Fields and Parks in the City of Pensacola

Chair Richards reviewed some information obtained from the Material Safety Data Sheets and other information provided by the City Parks and Recreation department concerning the various insecticides and herbicides used by the City. Per the charge from the Council, the Board needs to determine where these are being used, in what quantities, at what times, and what they are actually trying to kill.

Member Kopytchak noted that there was a schedule included in the packet and it looked like there were only three or four parks that they displayed the dates and the times, month after month, that they were being sprayed. The issue for the Board was kids playing. Most of the chemicals that he read about had a twelve hour avoidance. He was hoping that Member Fox would have been present to provide the Board with further in depth information, since it was her issue.

Chair Richards reviewed the Pesticide Recordkeeping Form that is submitted to the Florida Department of Agriculture that lists Exchange Park, Roger Scott, Bill Gregory, Legion Field, Magee Field and Lion's Park and the specific pesticide that is being used. He also reviewed the Ensec service invoices for Sanders Beach, Plaza Ferdinand, Palafox Park(Plaza DeLuna). He asked what is the Board's recommendation as far as chemicals and fertilizers to recommend to the Council and or the Mayor's staff? The Board's recommendation that there be a moratorium put on the application of those chemicals is an item on the consent agenda for the City Council Agenda Conference meeting on Monday and then will go to the City Council on Thursday, October 10. Chair Richards asked that the recommendation on the City Council's agenda be read into the record:

Recommendation: That City Council forward to the Mayor's Office the Following recommendation from the Environmental Advisory Board (EAB):

To propose a moratorium on the spraying of youth athletic fields and parks within the City limits until the City provides a comprehensive list of chemicals and the application schedule for the EAB to review.

Member Kopytchak stated that there was no moratorium needed per that motion anymore, since they provided the list and the scheduling. The reason the Board requested it that way was because the Board had previously requested it and had gotten incomplete information. The way that is worded, this response is to a public records response, then they have fulfilled the request.

Staff indicated that the next action would need to come from the Mayor's office.

Chair Richards indicated they would see what happens next week with the Council action. A recommendation is still going to come out of this Board as to increased record keeping. Be thinking about other things to recommend to the Mayor and/or the Council for the use of chemicals and fertilizers.

Member Butts stated if you know the times that whatever chemical was sprayed, how difficult would it be to find out what sporting activities were done that day, practices, etc.

Member Avant pointed out there are two separate activities—the Parks activity does the spraying, the Recreation activity does the scheduling and they don't always communicate.

Chair Richards stated that could be part of the Board's recommendation that those lines of communication or oversight be established.

Member Lynch indicated that the Parks and Recreation Department or the individual leagues could provide schedules for the individual fields. It is apparent that right now they have soccer, baseball, and football going on.

Member Kopytchak stated that the ultimate goal would be to whittle it down and then go organic wherever the kids are playing. That would solve all of it.

The Board further discussed obtaining more information about formulating a recommendation to the City. What parks are populated by youth sports, and what dates and times, whether it be practice or games, so that the Board will have that information for the next meeting.

Chair Richards stated that he would make that request.

6. New Business

There was no new business.

7. Reports and Announcements

Chair Richards announced the University of Florida IFAS Extension and Research facility community workshops on Flooding and Water Quality offered on October 3 at 6 p.m. at Sanders Beach Corrine Jones Resource Center an on October 10 at the UF at Pensacola State College Milton Campus.

Member Butts inquired about the City's stormwater vaults and who would know if they are cleaned out and if there were any projects to measure and characterize what is coming out. He reported that over on Dog River in Santa Rosa County, there is a stormwater collection project going on and wondered if the City was looking at doing something similar to characterize what makes it through. He volunteered to obtain the data from the City.

Chris Mauldin with Public Works provided the name of Roger Williams in the Public Works Department to contact for information.

Member Horning volunteered to take him on a tour to see all the trash that comes out of one neighborhood that goes into a river and into the bay.

Chair Richards stated that this issue will be put on as an additional action item. Basically, to focus on the vaults as to what the clean out schedule is and what is documented, whatever log books are required to be kept.

8. Public Comments—Open Forum

Mary Gutierrez made comments on previous stormwater collection methods, the Climate Mitigation and Adaptation Task Force report and the importance of not putting the report on the shelf. She was able to provide comments and information to the Mayor and City Council Members with regard to issuing a declaration of climate emergency. They need to create an actual adaptation and mitigation plan, since that wasn't created and stressed the importance of allowing representation from the community as a whole.

9. Adjourn

There being no further business to come before the Board, the meeting was adjourned at 3:35 p.m.

City of Pensacola Environmental Advisory Board Meeting
Thursday, October 3, 2019
Whibbs Conference Room, 1st Floor
City Hall, 222 West Main Street
2 P.M.

PLEASE SIGN IN

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NAME (Please Print)	Agenda Item	Telephone Number	Address
KRISTIN BENNETT			Tetra Tech. And
Setty Milson		850-360-3,950	2299 Sienic Hwy T-3 Persacola 32503
Chrs Halle		2695 984 OSS	18 mgh : 232
Mary Gutterne	NA	8507494r	1241 Senic Hahway Penzacola, Fr. 32503
Thre Hew ohill)	13	BD1

Sign In Sheet



STORMWATERCAPITAL IMPROVEMENT PROGRAM PROJECT DESCRIPTIONS

'L' Street at Kiwanis Park

Stormwater enhancement project to reduce localized street flooding and decrease pollution loading from subject area ultimately into Pensacola Bay. Proposed project would remove suspended solids by the construction of a retention pond at the park and would address localized flooding issues.

Budget: Projected O&M: Department:

\$45,000 in FY 2020 and \$275,000 in FY 2021 \$1,500 annually



Bayou Blvd, Lee, Lloyd and Stanley St. Outfalls to Bayou Texar

Subject stormwater outfalls have been identified as a contributor of pollution/sediment into Bayou Texar. Proposed project would use stormwater treatment units to reduce pollution into Bayou Texar and provide standard piping and inlet replacements to help address any nuisance flooding issues.

Budget: Projected O&M: Department:

\$50,000 in FY 2020 and \$386,400 in FY 2021 \$1,500 annually

Land and Easement Acquisitions for Stormwater Facility Sites

In the development of stormwater management assessments for different areas of the City, it will be necessary to periodically purchase real property and or easements for stormwater facility sites. Ensuring that a facility site is available with proper utility access to facilitate both construction and maintenance is essential before initiating the concept and design process.Budget: Projected O&M: Department:

\$50,000 in FY 2020 - FY 2024 None

9th Avenue Outfall to Pensacola Bay

Stormwater enhancement project to decrease pollution loading from south 9th Avenue corridor into Pensacola Bay and reduce flooding at the south end of 9th Ave. Proposed project would remove

suspended solids by the construction of an underground treatment unit and would address localized flooding issues with enhanced infrastructure.



Budget: Projected O&M: Department:

\$55,000 in FY 2022 and \$750,000 in FY 2023 \$2,000 annually

Bayou Blvd, Perry, Blount and Avery St. Outfalls at Bayou Texar

Subject stormwater outfalls have been identified as a contributor of pollution/sediment into Bayou Texar. Proposed project would use stormwater treatment units to reduce pollution into Bayou Texar and provide standard piping and inlet replacements to address any nuisance flooding issues.

Budget: Projected O&M: Department:

\$365,000 in FY 2020 \$2,000 annually

Scott, Yates, Lakeview and Strong Outfalls at Bayou Texar

Subject stormwater outfalls have been identified as a contributor of pollution/sediment into Bayou Texar. Proposed project would use stormwater treatment units to reduce pollution into Bayou Texar and provide standard piping and inlet replacements to address any nuisance flooding issues.

Budget: Projected O&M: Department:

\$362,000 in FY 2020 \$3,000 annually



Stormwater Vaults Citywide

The treatment vault program is a retrofitting process that is intended to provide stormwater treatment for existing development with a watershed at minimum expense by obviating the purchase of property

for the construction of conventional stormwater ponds. The treatment vaults will provide a cost effective system of removing sediments and suspended solids from the stormwater system before being discharged to local waterways.

Budget: Projected O&M: Department:

\$250,000 in FY 2020, \$250,000 in FY 2021, \$275,000 in FY 2022, \$275,000 in FY 2023 and \$275,000 in FY 2024 \$5,000 annually

Stormwater Capital Maintenance

An essential component of the City's stormwater program is to ensure that all new stormwater treatment facilities provided under the Capital Improvement Program function as intended and are properly maintained. Funds within this account will be used to provide contract maintenance for the cleaning of newly constructed baffle boxes, landscape maintenance and for contract water quality monitoring/testing necessary to ensure that the systems are working as designed.



Projected O&M: Department:

NPDES Permit Monitoring

\$375,000 in FY 2020, \$375,000 in FY 2021, \$375,000 in FY 2022, \$375,000 in FY 2023 and \$375,000 in FY 2024 \$5,000

The City of Pensacola works cooperatively with Escambia County, Florida for the administration and monitoring requirements established by the US EPA with regards to environmental compliance of the area's joint stormwater permit. To that end, the County and City have entered into an Interlocal Agreement to share costs related to required monitoring, permit renewal and reporting under the subject permit. Funding under this project addresses the annual allocation to Escambia County for this consolidated activity and all state/federal requirements related to and associated with the permit.

Budget: Projected O&M: Department:

\$125,000 in FY 2020, \$125,000 in FY 2021, \$125,000 in FY 2022, \$125K in FY 2023 and \$125,000 in FY 2024 \$3,000 annually

Alcaniz Street Outfall to Pensacola Bay

Subject stormwater outfall has been identified as a major contributor of sediment into Pensacola Bay. Proposed project would use stormwater treatment units to reduce pollution into Pensacola Bay and standard piping and inlets would help eliminate standing water issues in the area.



Budget: Projected O&M: Department:

\$500,000 in FY 2020 \$2,000 annually Langley Avenue at Homewood

Stormwater enhancement project to decrease pollution loading from subject area and address localized flooding. Proposed project would remove suspended solids by the construction of a retention pond and would address flooding.

Budget: Projected O&M: Department:

\$55,000 in FY 2020 and \$325,000 in FY 2021 \$2,000 annually



Spring Street Outfall to Pensacola Bay

Subject stormwater outfall has been identified as a major contributor of sediment into Pensacola Bay. Proposed project would use stormwater treatment units to reduce pollution into Pensacola Bay and standard piping and inlets would help eliminate standing water issues in the area.

Budget: Projected O&M: Department:

\$50,000 in FY 2020 and \$400,000 in FY 2021 None

Barrancas Avenue from 'E' to 'L' Street

This stretch of Barrancas Ave. is subject to historical nuisance flooding due to undersized stormwater infrastructure. Proposed project would provide design of a mitigation plan to address the flooding issues which would include stormwater treatment.

Budget: Projected O&M: Department:

\$150,000 in FY 2020 \$3,000 annually



Cordova Square (Market Place) Pond at 12th Avenue Pond Rehabilitation

Stormwater enhancement project to rehab and potentially expand existing stormwater pond at this location. Rehab work would include pond side sloping and pond expansion for increased pond retention volume to address flooding and pollutant loading issues in this area.

Budget: Projected O&M: Department:

\$59,400 in FY 2020 and \$250,000 in FY 2021 \$2,000 annually

Spanish Trail Pipe Rehabilitation

Project will address any disrepair associated with the aging stormwater conveyance pipe beneath Spanish Trail. Subject pipe is not functioning at designed capacity and will be reconditioned or replaced according to current industry standards to proactively prevent potential roadway cave-ins and potholing. This project will also enhance mitigation measures for localized flooding issues in the area.



Budget: Projected O&M: Department:

\$781,400 in FY 2022 \$0 annually Spring Street Pipe Rehabilitation

Project will address any disrepair associated with the aging stormwater conveyance pipe beneath Spring Street from LaRua to Chase Street. Subject pipe will be reconditioned or replaced according to current industry standards to proactively prevent potential roadway cave-ins and potholing. This project will also enhance mitigation measures for localized flooding issues in the area.

Budget: Projected O&M: Department:

\$775,000 in FY 2022 \$0 annually



Summit Boulevard, Spanish Trail to Firestone

Stormwater enhancement project to reduce localized street flooding and decrease pollution loading from subject area ultimately into Pensacola Bay. Proposed project would remove suspended solids and would address localized flooding issues with the construction of a retention pond.

Budget: Projected O&M: Department:

South DeVilliers Street

\$646,400 in FY 2024 \$1,500 annually

Stormwater enhancement project to reduce localized street flooding and decrease pollution loading from subject area ultimately into Pensacola Bay. Proposed project would remove suspended solids and would address localized flooding issues.

Budget: Projected O&M: Department:

\$475,000 in FY 2023 and \$190,000 in FY 2024 \$1,500 annually Cross Street, Martin Luther King, Jr. to 9th Avenue

Stormwater enhancement project to reduce localized street flooding and decrease pollution loading from subject area ultimately into Pensacola Bay. Proposed project would remove suspended solids and would address localized flooding issues.



Budget: Projected O&M: Department:

\$386,400 in FY 2023 and \$250,000 in FY 2024 \$1,500 annually

12th Avenue at Fairfield Drive

Stormwater enhancement project to reduce localized street flooding and decrease pollution loading from subject area ultimately into Pensacola Bay. Proposed project would remove suspended solids and would address localized flooding issues.

Budget: Projected O&M: Department:

\$525,000 in FY 2024 \$1,500 annually



Stormwater Grant Match Funding

The majority of state and federal stormwater grant programs require the requesting municipality to provide a certain percentage of direct project match funds and typically varies from 10% to 60% of the projected total project cost. This initiative would consist of accumulating annual funds derived from the City Stormwater Utility Fee to provide ready match-funding for the stormwater grant programs. This endeavor would also help to effectively demonstrate the City's disposition toward stormwater-related resiliency issues and also provides a funding mechanism for the preparation of stormwater-related grant applications and award applications.

Budget: Projected O&M: Department:

\$140,000 in FY 2020, \$140,000 in FY 2021, \$140,000 in FY 2022, \$140,000 in FY 2023 and \$140,000 in FY 2024 \$0 annually

FLORIDA'S FIRST & FUTURECITY OF PENBACOLASTORMWATER CAPITAL IMPROVEMENT PROGRAMFISCAL YBARS 2020- 2024

PROJECT 2020 2021 2022 2023 2024

1 "L" Street at Kiwanis Park	45,000	275,000			
2 Bayou Blvd, Lee, Lloyd and Stanley St. Outfalls to Bayou Texar	50,000	386,400			
3 Land Acquistion for Stormwater Facility Sites	50,000	50,000	50,000	50,000	50,000
4 9th Avenue Outfall to Pensacola Bay			55,000	750,000	
5 Bayou Blvd, Perry, Blount and Avery St. Outfalls at Bayou Texar	365,000				
6 Scott, Yates, Lakeview and Strong Outfalls at Bayou Texar	362,000				
7 Stormwater Vaults Citywide	250,000	250,000	275,000	275,000	275,000
8 Stormwater Capital Maintenance	375,000	375,000	375,000	375,000	375,000
9 NPDES Permit Monitoring	125,000	125,000	125,000	125,000	125,000
10 Alcaniz Street Outfall to Pensacola Bay	500,000				
11 Langley Avenue and Homewood	55,000	325,000			
12 Spring Street Outfall to Pensacoa Bay	50,000	400,000			
13 Barrancas Avenue, "E" to "L" Street	150,000				
14 Cordova Square (Market Place) at 12th Avenue Pond Rehabiliation	59,400	250,000			
15 Spanish Trail Pipe Rehabilitation			781,400		
16 Spring Street Pipe Rehabilitation			775,000		
17 Summit Boulevard, Spanish Trail to Firestone					646,400
18 South DeVilliers Street				475,000	190,000
19 Cross Street, Martin Luther King, Jr. to 9th Avenue				386,400	250,000
20 12th Avenue at Fairfield Drive			ense en		525,000
21 Stormwater Grant Match Funding	140,000	140,000	140,000	140,000	140,000
TOTAL FOR STORMWATER PROJECTS	2,576,400	2,576,400	2,576,400	2,576,400	2,576,400



POLLUTION SOLUTION

Citizens can do their part to help maintain the quality of our drinking water. Reducing stormwater pollution can have a positive impact not only on our beautiful Martin County waterways, but also on our drinking water. Here are the top 10 things you can do to reduce runoff pollution.

ONLY RAIN GOES DOWN THE STORM DRAIN.

Never dump anything you wouldn't want to drink or swim in onto the street, down a storm drain or into a drainage ditch, including grass clippings or leaves.

THROW TRASH IN ITS PLACE.

CLEAN UP AFTER YOUR PET.

CHECK YOUR VEHICLES FOR LEAKS - AND REPAIR THEM.



Report any illicit discharges to Martin County's waterways or storm drains to our STORMWATER HOTLINE AT 772.288.5658.



REDUCE HOUSEHOLD HAZARDOUS WASTES.

If you already have them at home, dispose of them properly.

10

TELL A FRIEND

or neighbor about how to prevent stormwater pollution and get involved in your community's programs.

USE FERTILIZER AND PESTICIDE SPARINGLY.

They pose a serious threat to your health and safety and pollute both ground and surface water. It's far cheaper to prevent pollution than it is to clean it up!



THINK GREEN.

Compost leaves and yard clippings. Use rain barrels to collect water or plant a rain garden with deep-rooted native plants and grasses designed to capture rainwater runoff and stop the water from reaching the storm sewer system.





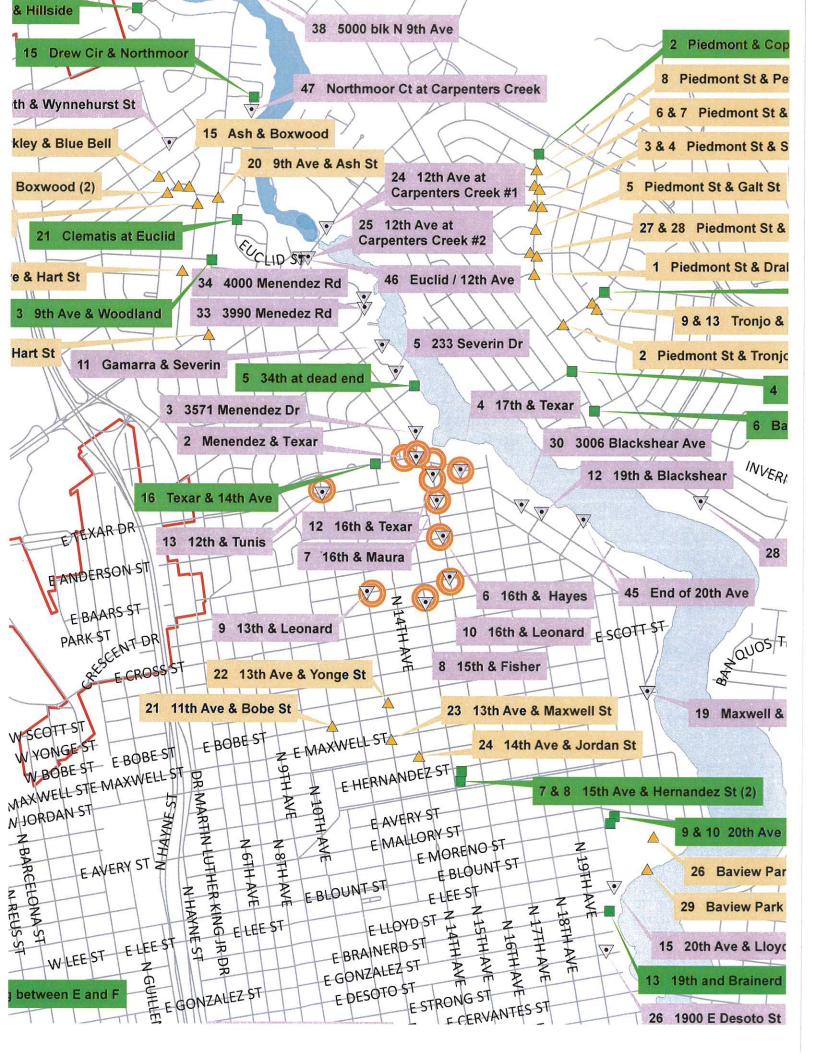
rather than on pavement.



ID#	Address	Volume of	Material Per	noved in Cu Yds
IU#	AquaShield Unit			noved in Cu rus
	1 1st blk N W St	0.2		
	2 201 S Stillman S			
	3 3500 W Navy Bl		0.2	
	, 1 3501 W Navy Bl			
	3530 Briarcliff D		0.1	
	Baffle Boxes			
1	L Tronjo & Ashmo	24	16.7	
2	Piedmont & Cop	36	22.4	
3	3 9th Ave & Wood	24	8	
4	l Bayou Blvd & Gι	8	7	
	34th at dead en		8.9	
	Bayou Blvd & Ba		16.8	
	15th Ave & Herr	857,870	17	
	3 15th Ave & Herr		18	
	20th Ave & Mall		22.1	
	20th Ave & Mall		31.7	
	Birchwood & Hil		17.4	
	19th and Braine	19.4	9	
	Strong between Drew Cir & Nort	8.5	4.3 2.6	
	Texar & 14th Av	23	2.7	
	17th Ave Trestle		2.5	
	Cypress & St	16	12	
	Scenic Hwy at Ba		10.7	
	R St & Wright St	,	2.1	
	Clematis at Eucli	d	8.6	
	Bay Savers			
1	Piedmont St & C	6.3	2.1	
2	Piedmont St & T	8.4	2.3	
3	Piedmont St & S	8.3	1.2	
	Piedmont St & S	1.7	2.1	
	Piedmont St & G	5.2	1.3	
	Piedmont St & N	2.5	1.3	
	Piedmont St & N	4.2	1.2	
	Piedmont St & P	1.7	1.8	
	Tronjo St & McC	3.1	3	
	Peacock St & Cre	7.3	3.2	
	Peacock St & Or 9th Ave & Hart S	4.2	3.5	
	Tronjo & McClel	5.2	0.9	
	8th Ave & Hart S	9.4 3.6	2.1 1.1	
	Ash & Boxwood	2.2	1.1	
	Blue Bell & Boxv	5.2	1.7	
	Blue Bell & Boxv	5.2	2.4	
	Berkley & Blue E	5.2	2.1	
	4			

19 Acacia & Gentia	2.9	1.3
20 9th Ave & Ash St	4.2	2.4
21 11th Ave & Bobe	4	2.4
22 13th Ave & Yons	3	2.1
23 13th Ave & Max	3	1.2
24 14th Ave & Jord	1.4	3.5
25 S Palafox St & Aı	3.1	
		0.3
26 Baview Park	3.1	0.9
27 Piedmont St & F	2.1	2.1
28 Piedmont St & F	5	3
29 Baview Park Cer	5.2	2.5
30 100 blk S 9th Av	5.1	2.1
Suntree Vaults		
1 Springhill and Hi	9	2.7
2 10th Ave & Sala	8.3	9.8
3 10th Ave & Sala	23	1.5
Vortech Units		
1 Kenneth & Wyni	15	2.8
2 Menendez & Te:	1.2	0.4
3 3571 Menendez	7.5	1.1
4 17th & Texar	11.5	2.2
5 233 Severin Dr	3	0.5
6 16th & Hayes	1.9	1.4
7 16th & Maura	1.1	5.6
8 15th & Fisher	1.4	3.5
9 13th & Leonard	3	1
10 16th & Leonard	1.9	1.9
11 Gamarra & Seve	5.5	2.5
12 16th & Texar	1.1	0.4
13 12th & Tunis	3	1.1
14 Guillemard & Ce	50	
		20
15 20th Ave & Lloy	4.2	1.8
16 Florida Blanca	2.1	2.1
17 Baylen & Cedar	5.7	2.9
18 Baylen & Cedar	5.6	9
19 Maxwell & Wha	15	11
20 Maxwell & Wha	25	20
21 Banquos Trail of	12.6	8
22 Pace Blvd & Gregor	ry St	7.5
23 100 blk S 9th Ave		5.1
24 12th Ave at Carp	4.4	4.4
25 12th Ave at Carp	4.3	0.8
26 1900 E Desoto S	4.8	1
27 2100 blk W Gim	7.1	7.4
28 2601 Bayou Blvc	5.7	2.3
29 300 blk Davison	5.6	1.4
30 3006 Blackshear	5.7	2.5

31 3220 Bayou Dr	5.8	2.1	
32 3500 Bayou Dr		0.1	
33 3990 Menedez Rd		0.7	
34 4000 Menendez Rd		1.7	
35 4300 blk Montalvo			
36 4940 Rugby Ct		2.4	
37 4980 Woodcliff Dr		4	
38 5000 blk N 9th Ave		5.2	
39 5149 Bayou Blvd		0.6	
40 5700 blk N Davis Hwy		4	
41 805 S Pace Blvd		0.8	
42 Bill Gregory Park		3	
43 Corinne Jones Park		3	
44 Corinne Jones Park		3	
45 End of 20th Ave		0.7	
46 Euclid / 12th Ave		5.1	
47 Northmoor Ct at	0.8	1.2	
48 4720 Peacock		4	
49 19th and Blackshear		3.6	
50 300 Davidson		0.3	



Item 5(6)

Athletic Field Chemical Chart	nical Chart					
Product	Type	Standard	Used to Control	Spread	Frequency	Time of Day
1 Revolver	Herbicide	Herbicide Applied by licensed applicator per instructions	Post-emergent herbicide to control grasses and Broadly weeds in turf grass.	Broadly	As Needed	Early AM
2 Certainty	Herbicide	Herbicide Applied by licensed applicator per instructions	Post-emergent herbicide to control weeds in turf grass.	Broadly	As Needed	Early AM
3 Specticle Flo G	Herbicide	Herbicide Applied by licensed applicator per instructions	Pre-Emergent herbicide to control grasses & broadleaf weeds in turf grass	Broadly	As Needed/Each February; Prior to start of season	Early AM
4 Lesco 3-Way	Herbicide	Herbicide Applied by licensed applicator per instructions	Post-emergent herbicide to control grasses and Broadly weeds in turf grass.	Broadly	As Needed	Early AM
5 Crosscheck	Insecticide	Insecticide Applied by licensed applicator per instructions	Insecticide to control many species of pest on Broadly/Spot Treatment As Needed athletic fields	Broadly/Spot Treatment	As Needed	Early AM



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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name

REVOLVER® HERBICIDE

Product code (UVP)

79644205, 86252163

SDS Number

102000022418

EPA Registration No.

432-1266

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

Use

Herbicide

Restrictions on use

See product label for restrictions.

Information on supplier

Supplier

Bayer Environmental Science

2 T.W. Alexander Drive

Research Triangle PK, NC 27709

USA

Responsible Department

Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information

Telephone Number

1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Skin sensitisation: Category 1 Skin irritation: Category 2 Aspiration hazard: Category 1

Labelling in accordance with regulation HCS 29CFR §1910.1200





Signal word Danger

Hazard statements

Causes skin irritation.

May cause an allergic skin reaction.

May be fatal if swallowed and enters airways.



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Precautionary statements

Wash thoroughly after handling.

Wear protective gloves.

Avoid breathing mist/ spray.

Contaminated work clothing should not be allowed out of the workplace.

IF ON SKIN: Wash with plenty of water/ soap.

If skin irritation or rash occurs: Get medical advice/ attention.

IF SWALLOWED: Immediately call a POISON CENTER/doctor/ physician. Specific treatment (see supplemental first aid instructions on this label).

Take off contaminated clothing and wash before reuse.

Do NOT induce vomiting.

Store locked up.

Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.

No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Foramsulfuron	173159-57-4	2.34
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	34.76
Calcium dodecylbenzenesulfonate, branched	70528-83-5	1.8
1-Octanol	111-87-5	1.2
Naphthalene	91-20-3	0.35

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice When possible, have the product container or label with you when

calling a poison control center or doctor or going for treatment.

Inhalation Move to fresh air. If person is not breathing, call 911 or an ambulance,

then give artificial respiration, preferably mouth-to-mouth if possible.

Call a physician or poison control center immediately.

Skin contact Take off contaminated clothing and shoes immediately. Wash off

immediately with plenty of water for at least 15 minutes. Call a

physician or poison control center immediately.

Eye contact Hold eye open and rinse slowly and gently with water for 15-20

minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center

immediately.



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Ingestion Call a physician or poison control center immediately. Rinse out mouth

and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim

unattended.

Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

Risks Contains hydrocarbon solvents. May pose an aspiration pneumonia

hazard.

Treatment Appropriate supportive and symptomatic treatment as indicated by the

patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Water spray, Carbon dioxide (CO2), Foam, Sand

Unsuitable High volume water jet

Special hazards arising from the substance or

mixture

In the event of fire the following may be released:, Carbon monoxide (CO), Carbon dioxide (CO2), Hydrogen cyanide (hydrocyanic acid), Nitrogen oxides (NOx), Sulphur dioxide (SO2), Dangerous gases are

evolved in the event of a fire.

Advice for firefighters

Special protective equipment for firefighters

Firefighters should wear NIOSH approved self-contained breathing

t for firefighters apparatus and full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Cool closed

containers exposed to fire with water spray. Do not allow run-off from

fire fighting to enter drains or water courses.

Flash point 128 °C

Auto-ignition temperature No data available

are ignition temperature into data availab

Lower explosion limit No data available

Upper explosion limit No data available

Explosivity Not applicable



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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Isolate hazard area. Keep unauthorized people away. Avoid contact

with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid Methods for cleaning up

binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in

suitable, closed containers for disposal.

Additional advice Use personal protective equipment. If the product is accidentally

spilled, do not allow to enter soil, waterways or waste water canal. Do

not allow product to contact non-target plants.

Reference to other sections Information regarding safe handling, see section 7.

Information regarding personal protective equipment, see section 8.

Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Use only in area provided with appropriate exhaust ventilation. Handle Advice on safe handling

and open container in a manner as to prevent spillage.

Hygiene measures Remove Personal Protective Equipment (PPE) immediately after

> handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before

using again. Wash thoroughly and put on clean clothing.

Wash hands thoroughly with soap and water after handling and before

eating, drinking, chewing gum, using tobacco, using the toilet or

applying cosmetics.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and

feed. Store in original container and out of the reach of children.

preferably in a locked storage area.

Protect from freezing.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Foramsulfuron	173159-57-4	10 mg/m3		OES BCS*



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	T	(TWA)	T	T
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	200 mg/m3 (TWA)	03 2014	ACGIH
(Non-aerosol.) Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	400 mg/m3/100 ppm (REL)	2010	NIOSH
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	100 mg/m3 (REL)	2010	NIOSH
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	400 mg/m3/100 ppm (PEL)	02 2006	OSHA Z1
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	400 mg/m3/100 ppm (TWA)	1989	OSHA Z1A
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	400 mg/m3/100 ppm (TWA)	06 2008	TN OEL
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	1,600 mg/m3/400 ppm (TWA PEL)	08 2010	US CA OEL
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	1,350 mg/m3/300 ppm (TWA PEL)	09 2013	US CA OEL
Solvent Naphtha (petroleum), heavy aromatic, <1% naphthalene	64742-94-5	1,800 mg/m3/400 ppm (STEL)	09 2013	US CA OEL
1-Octanol	111-87-5	265 mg/m3/50 ppm (TWA)	2010	WEEL
Naphthalene	91-20-3	10 ppm (TWA)	02 2012	ACGIH
Naphthalene	91-20-3	50 mg/m3/10 ppm (REL)	2010	NIOSH
Naphthalene	91-20-3	75 mg/m3/15 ppm (STEL)	2010	NIOSH
Naphthalene	91-20-3	50 mg/m3/10 ppm (PEL)	02 2006	OSHA Z1
Naphthalene	91-20-3	75 mg/m3/15 ppm	06 2008	TN OEL



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		(STEL)		
Naphthalene	91-20-3	50 mg/m3/10 ppm (TWA)	06 2008	TN OEL
Naphthalene	91-20-3	0.5 mg/m3/0.1 ppm (TWA PEL)	10 2014	US CA OEL
Naphthalene	91-20-3	10 ppm (TLV)		OES BCS*

^{*}OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Biological occupational exposure limits

Components	CAS-No.	Parameters	Biological specimen	Sampling time	Conc.	Basis
Naphthalene	91-20-3	1-Naphthol, with hydrolysis + 2-Naphthol, with hydrolysis		Sampling time: End of shift.		ACGI H BEI

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment

based on actual or potential airborne concentrations and in

accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection

Chemical resistant nitrile rubber gloves

Eye protection

Tightly fitting safety goggles

Skin and body protection

Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid

water.

Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

beige

Physical State

Liquid

Odor

aromatic

Odour Threshold

No data available

рН

5.0 - 7.0 (10 %) (23 °C) (deionized water)

Vapor Pressure

No data available



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Vapor Density (Air = 1) No data available

Density ca. 0.96 g/cm³ (20 °C)

Evaporation rateNo data availableBoiling PointNo data availableMelting / Freezing PointNo data available

Water solubility dispersible

Minimum Ignition Energy Not applicable

Decomposition No data available

Partition coefficient: n-

octanol/water

temperature

No data available

Viscosity 25 - 100 mPa.s (20 °C) Velocity gradient 20 /s

20 - 60 mPa.s (20 °C) Velocity gradient 100 /s

Flash point 128 °C

Auto-ignition temperature No data available

Lower explosion limit No data available

Upper explosion limit No data available

Explosivity Not applicable

Other information Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition No data available

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

No hazardous reactions when stored and handled according to

prescribed instructions.

Conditions to avoid No data available

Incompatible materials No data available

Hazardous decomposition

products

No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Eye contact, Skin contact, Ingestion, Inhalation



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Immediate Effects

Eye

Moderate eye irritation.

Skin

Prolonged or frequently repeated skin contact may cause allergic

reactions in some individuals. May cause skin irritation.

Ingestion

May be harmful if swallowed.

Information on toxicological effects

Acute oral toxicity

LD50 (Rat) > 5,000 mg/kg

Acute inhalation toxicity

LC50 (Rat) > 5.25 mg/l

Exposure time: 4 h

Determined in the form of liquid aerosol.

Acute dermal toxicity

LD50 (Rat) > 5,000 mg/kg

Skin corrosion/irritation

Moderate skin irritation. (Rabbit)

Serious eye damage/eye

e

Slight irritant effect - does not require labelling. (Rabbit)

irritation

Respiratory or skin

Skin: Sensitising (Guinea pig)

sensitisation

OECD Test Guideline 406, Buehler test

Assessment STOT Specific target organ toxicity - repeated exposure

Foramsulfuron did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Foramsulfuron was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Foramsulfuron was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

Solvent Naphtha (petroleum), heavy aromatic,

64742-94-5

Group A3

<1% naphthalene

Naphthalene

91-20-3

Group A3

NTP

Naphthalene

91-20-3

IARC

Naphthalene

91-20-3

Overall evaluation: 2B

OSHA

None.

Assessment toxicity to reproduction

Foramsulfuron did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity



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Foramsulfuron did not cause developmental toxicity in rats and rabbits.

Further information

Acute toxicity studies have been bridged from a similar formulation(s). The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to aquatic

EC50 (Daphnia magna (Water flea)) 6.9 mg/l

invertebrates

Exposure time: 48 h

Toxicity to aquatic plants

EC50 (Raphidocelis subcapitata (freshwater green alga)) > 5 mg/l

Growth rate; Exposure time: 96 h

EC50 (Lemna gibba (gibbous duckweed)) 0.75 µg/l

Growth rate: Exposure time: 7 d

Biodegradability

Foramsulfuron:

Not rapidly biodegradable

Koc

Foramsulfuron: Koc: 38 - 151

Bioaccumulation

Foramsulfuron:

Does not bioaccumulate.

Mobility in soil

Foramsulfuron: Mobile in soils

Additional ecological

information

The ecological data refer to a similar formulation. No other effects to be mentioned.

Environmental precautions

Do not apply directly to water, to areas where surface water is present

or to intertidal areas below the mean high water mark.

Do not contaminate surface or ground water by cleaning equipment or

disposal of wastes, including equipment wash water. Do not apply when weather conditions favor runoff or drift.

Drift or runoff from treated areas may adversely affect non-target plants.

Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose in accordance with all local, state/provincial and federal Product

regulations.

Never place unused product down any indoor or outdoor drain.

Contaminated packaging Do not re-use empty containers.

Triple rinse containers.



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Completely empty container into application equipment, then dispose of

empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities.

If burned, stay out of smoke.

Follow advice on product label and/or leaflet.

RCRA Information Characterization and proper disposal of this material as a special or

hazardous waste is dependent upon Federal, State and local laws and

are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR

UN number 3082 Class 9

Packaging group III

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID,

N.O.S.

(NAPHTHALENE)

Reportable Quantity is reached with 28,571 lb of product.

IMDG

UN number 3082
Class 9
Packaging group III
Marine pollutant YES

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID.

N.O.S.

(ALKYL (C3-C6) BENZENE SOLUTION)

IATA

UN number 3082
Class 9
Packaging group III
Environm. Hazardous Mark YES

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(ALKYL (C3-C6) BENZENE SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15: REGULATORY INFORMATION

EPA Registration No.

432-1266



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US Federal Regulations

TSCA list

Solvent Naphtha (petroleum), heavy

64742-94-5

aromatic, <1% naphthalene

Calcium dodecylbenzenesulfonate.

70528-83-5

branched

1-Octanol

111-87-5

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D) Not applicable.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

Solvent Naphtha (petroleum), heavy

64742-94-5

CT, NJ, RI

aromatic, <1% naphthalene

1-Octanol

111-87-5

CT, MN, RI

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word:

Caution!

Hazard statements:

Moderate eye irritation.

Avoid contact with skin, eyes and clothing.

Prolonged or frequently repeated skin contact may cause allergic

reactions in some individuals.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR

Code of Federal Regulations, Title 49

ACGIH ATE US. ACGIH Threshold Limit Values

CACNE

Acute toxicity estimate

CAS-Nr.

Chemical Abstracts Service number

CERCLA

Comprehensive Environmental Response, Compensation, and Liability Act

EINECS

European inventory of existing commercial substances



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ELINCS IARC

European list of notified chemical substances International Agency for Research on Cancer

IATA **IMDG**

International Air Transport Association International Maritime Dangerous Goods

N.O.S. Not otherwise specified

NTP

US. National Toxicology Program (NTP) Report on Carcinogens Organization for Economic Co-operation and Development

OECD TDG

Transportation of Dangerous Goods

TWA UN

Time weighted average **United Nations**

WHO

World health organisation

NFPA 704 (National Fire Protection Association):

Health - 1

Flammability - 1

Instability - 0

Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1

Flammability - 1

Physical Hazard - 0

PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: The following sections have been revised: Section 2: Hazards Identification. Reviewed and updated for general editorial purposes.

Revision Date: 05/10/2019

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.

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MONSANTO COMPANY

Safety Data Sheet Commercial Product

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

Certainty® Turf Herbicide

1.1.1. Chemical name

Not applicable.

1.1.2. Synonyms

None.

1.1.3. EPA Reg. No.

524-534

1.2. Product use

Herbicide

1.3. Company

MONSANTO COMPANY, 800 N. Lindbergh Blvd., St. Louis, MO, 63167

Telephone: 800-332-3111, Fax: 314-694-5557 E-mail: safety.datasheet@monsanto.com

1.4. Emergency numbers

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted). FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

2. HAZARDS IDENTIFICATION

2.1. Classification

OSHA Hazard Communication Standard, 29 CFR 1910.1200 (2012) Not classified as hazardous.

2.2. Appearance and odour (colour/form/odour)

Whitish / Granules, (free-flowing) / Odourless

2.3. OSHA Status

This product is not hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Refer to section 11 for toxicological and section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient

N-[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-2-(ethylsulfonyl)imidazo[1,2-a]pyridine-3-sulfonamide; {Sulfosulfuron}

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Composition

COMPONENT	CAS No.	% by weight (approximate)	
Sulfosulfuron	141776-32-1	75	
Other ingredients		25	

The specific chemical identity is being withheld because it is trade secret information of Monsanto Company.

4. FIRST AID MEASURES

Use personal protection recommended in section 8.

4.1. Description of first aid measures

- **4.1.1.** Eye contact: If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.
- **4.1.2. Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- 4.1.3. Inhalation: If inhaled, move person to fresh air. If person is not breathing, call emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
- **4.1.4. Ingestion:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison center or doctor. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

- **4.2.1. Eye contact, short term:** May cause temporary eye irritation.
- **4.2.2. Skin contact, short term:** Not expected to produce significant adverse effects when recommended use instructions are followed.
- **4.2.3. Inhalation, short term:** Not expected to produce significant adverse effects when recommended use instructions are followed.
- **4.2.4. Single ingestion:** Not expected to produce significant adverse effects when recommended use instructions are followed.

4.3. Indication of any immediate medical attention and special treatment needed

4.3.1. Medical conditions aggravated by exposure: None.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Recommended: Water, foam, dry chemical, carbon dioxide (CO2)

5.2. Special hazards

5.2.1. Unusual fire and explosion hazards

Minimise use of water to prevent environmental contamination.

Environmental precautions: see section 6.

5.2.2. Hazardous products of combustion

Carbon monoxide (CO), carbon dioxide (CO2), sulphur oxides (SOx), nitrogen oxides (NOx), ammonia (NH3)

5.3. Fire fighting equipment: Self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

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5.4. Flash point

Not applicable.

6. ACCIDENTAL RELEASE MEASURES

6.1. Environmental precautions

SMALL QUANTITIES:

Low environmental hazard.

LARGE QUANTITIES:

Minimise spread.

Keep out of drains, sewers, ditches and water ways.

6.2. Methods for cleaning up

SMALL QUANTITIES:

Sweep, scoop or vacuum to remove.

Wash spill area with detergent and water.

LARGE QUANTITIES:

Dig up heavily contaminated soil.

Refer to section 7 for types of containers.

Collect in containers for disposal.

Flush residues with small quantities of water.

Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

7.1. Precautions for safe handling

Avoid contact with eyes, skin and clothing. When using do not eat, drink or smoke. Avoid breathing dust. Wash hands thoroughly after handling or contact. Wash contaminated clothing before re-use. Thoroughly clean equipment after use. Do not contaminate drains, sewers and water ways when disposing of equipment rinse water. Refer to section 13 of the safety data sheet for disposal of rinse water.

7.2. Conditions for safe storage

Maximum storage temperature: < 120 °F

Compatible materials for storage: stainless steel, galvanised steel, unlined mild steel, Heresite[TM]-lined steel, mild steel, aluminium, fibreglass, plastic, polyvinylidene difluoride (PVDF), polypropylene (PP), high-density polyethylene (HDPE)

Incompatible materials for storage: none known.

Keep out of reach of children.

Keep away from food, drink and animal feed.

Keep only in the original container.

Keep container tightly closed in a cool, well-ventilated place.

Keep container off wet floors.

Minimum shelf life: 2 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Airborne exposure limits

Components	Exposure Guidelines	
Sulfosulfuron	No specific occupational exposure limit has been established.	
Other ingredients	No specific occupational exposure limit has been established.	

8.2. Engineering controls: No special requirement when used as recommended.

8.3. Recommendations for personal protective equipment

- **8.3.1.** Eye protection: If there is significant potential for contact: Wear dust goggles.
- **8.3.2. Skin protection:** No special requirement when used as recommended. Applicators and other handlers must wear: Wear long sleeved shirt, long pants and shoes with socks. Keep and wash personal protective equipment separately from other laundry. If no such instructions for washables, use detergent and hot water.
- **8.3.3. Respiratory protection:** No special requirement when used as recommended.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Whitish
Odour:	Odourless
Form:	Granules, (free-flowing)
Physical form changes (melting, bo	iling, etc.):
Melting point:	No data.
Boiling point:	Not applicable.
Flash point:	Not applicable.
Explosive properties:	No explosive properties
Auto ignition temperature:	Does not self-ignite.
Self-accelerating decomposition temperature (SADT):	No data.
Oxidizing properties:	none
Specific gravity:	Not applicable.
Particle size:	> 99.5 % Mesh size 40
Vapour pressure:	No significant volatility.
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	Not applicable.
Kinematic viscosity:	Not applicable.
Density:	33.8 lb/ft3; (loose bulk density)
Solubility:	Water: Soluble
pH:	5.5 @ 10 g/l
Partition coefficient:	log Pow: < 1 (sulfosulfuron)

10. STABILITY AND REACTIVITY

10.1. Stability

Stable under normal conditions of handling and storage.

Hazardous polymerization: Does not occur.

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10.2. Incompatible materials

none known.;

Compatible materials for storage: see section 7.2.

10.3. Hazardous decomposition

Thermal decomposition: Hazardous products of combustion: see section 5.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Likely routes of exposure: eye contact, Skin contact, inhalation

Potential health effects

Eye contact, short term: May cause temporary eye irritation.

Skin contact, short term: Not expected to produce significant adverse effects when recommended use

instructions are followed.

Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions

are followed.

Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are

followed.

Data obtained on product, similar products and on components are summarized below.

Skin irritation

Rabbit, 6 animals, Draize test:

Days to heal: 0

Primary Irritation Index (PII): 0.0/8.0

No skin irritation.

Eye irritation

Rabbit, 6 animals, OECD 405 test:

Days to heal: 3 Slight irritation.

Similar formulation

Acute oral toxicity

Rat, LD50: > 5,000 mg/kg body weight

Practically non-toxic. No mortality.

Acute dermal toxicity

Rat, LD50: > 5,000 mg/kg body weight

Practically non-toxic. No mortality.

Acute inhalation toxicity

Rat, LC50, 4 hours, dust: > 2.6 mg/L

Practically non-toxic.

Skin sensitization

Guinea pig, maximisation test:

Positive incidence: 0 %

Active ingredient

Genotoxicity

Not genotoxic.

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Carcinogenicity

Urinary bladder tumours in rats and mice. Mode(s) of action not relevant to humans.

Reproductive/Developmental Toxicity

No reproductive effects in rats.

No developmental effects in rats or rabbits.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on similar products and on components are summarized below.

Similar formulation

Aquatic toxicity, fish

Rainbow trout (Oncorhynchus mykiss):

Acute toxicity (limit test), 96 hours, static, LC50: > 97 mg/L No more than slightly toxic.

Similar formulation

Aquatic toxicity, invertebrates

Water flea (Daphnia magna):

Acute toxicity (limit test), 48 hours, static, EC50: > 144 mg/L

Practically non-toxic.

Aquatic toxicity, algae/aquatic plants

Green algae (Pseudokirchneriella subcapitata):

Acute toxicity, 72 hours, static, EC50: 71.4 μg/L

Very highly toxic.

Duckweed (Lemna gibba):

Acute toxicity, 7 day, semi-static, ErC50 (frond number): 1.20 μg/L

Very highly toxic.

Duckweed (Lemna gibba):

Acute toxicity, 7 day, semi-static, NOEC: 0.27 µg/L

Very highly toxic.

Arthropod toxicity

Honey bee (Apis mellifera):

Contact, 48 hours, LD50: > 123 µg/bee

Practically non-toxic.

Honey bee (Apis mellifera):

Oral, 48 hours, LD50: > 128 µg/bee

Practically non-toxic.

Active ingredient

Avian toxicity

Bobwhite quail (Colinus virginianus):

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet

Practically non-toxic.

Mallard duck (Anas platyrhynchos):

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet

Practically non-toxic.

Bobwhite quail (Colinus virginianus):

Acute oral toxicity, single dose, LD50: > 2,250 mg/kg body weight

Practically non-toxic.

Mallard duck (Anas platyrhynchos):

Acute oral toxicity, single dose, LD50: > 2,250 mg/kg body weight

Practically non-toxic.

Soil organism toxicity, invertebrates

Earthworm (Eisenia foetida):

Acute toxicity (limit test), 14 days, LC50: > 848 mg/kg dry soil

Bioaccumulation

No significant bioaccumulation is expected.

Dissipation

Soil, field:

Half life: 11 - 47 days

Water, aerobic:

Half life: 16 - 20 days

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product

Keep out of drains, sewers, ditches and water ways. Recycle if appropriate facilities/equipment available. Burn in proper incinerator. Follow all local/regional/national/international regulations.

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13.1.2. Container

See the individual container label for disposal information. Emptied packages retain product residue and dust. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Empty packaging completely. Store for collection by approved waste disposal service. Ensure packaging cannot be reused. Do NOT re-use containers. Recycle if appropriate facilities/equipment available. Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

14.1. US Dept. of Transportation (DOT) Hazardous Materials Regulations (49 CFR Parts 105-180)

14.1.1. Special provisions

This material meets the definition of a marine pollutant.

Non-bulk packagings are NOT hazardous via US domestic land transportation.

14.2. IMDG Code

14.2.1. Note

Use description for ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., LIMITED QUANTITY

14.3. IATA/ICAO

14.3.1. Note

Use description for ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

15. REGULATORY INFORMATION

15.1. Environmental Protection Agency

15.1.1. TSCA Inventory

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Exempt

15.1.2. SARA Title III Rules

Section 311/312 Hazard Categories: Immediate

Section 302 Extremely Hazardous Substances: Not applicable.

Section 313 Toxic Chemical(s): Not applicable.

15.1.3. CERCLA Reportable quantity

Not applicable.

15.1.4. Federal Insecticide, Fungicide, Rodenticide Act (FIFRA)

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!

CAUSES MODERATE EYE IRRITATION

Skin irritation: FIFRA category IV.
Eye irritation: FIFRA category III.
Acute oral toxicity: FIFRA category IV.
Acute dermal toxicity: FIFRA category IV.
Acute inhalation toxicity: FIFRA category IV.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.

Follow all local/regional/national/international regulations.

Please consult supplier if further information is needed.

In this document the British spelling was applied.

|| Significant changes versus previous edition.

This Safety Data Sheet has been prepared following the Regulation (EC) No. 1907/2006 (Annex II) as last amended by Regulation (EC) No. 453/2010

Data provided in this Safety Data Sheet are for the product as supplied unless otherwise indicated.

Health Flammability Instability Additional Markings
NFPA 1 1 1 1
0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Effect Level), MEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for

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employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, MONSANTO Company or any of its subsidiaries makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will MONSANTO Company or any of its subsidiaries be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR TO THE PRODUCT TO WHICH INFORMATION REFERS.

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MONSANTO COMPANY

Safety Data Sheet Commercial Product

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

Certainty® Turf Herbicide

1.1.1. Chemical name

Not applicable.

1.1.2. Synonyms

None.

1.1.3. EPA Reg. No.

524-534

1.2. Product use

Herbicide

1.3. Company

MONSANTO COMPANY, 800 N. Lindbergh Blvd., St. Louis, MO, 63167

Telephone: 800-332-3111, Fax: 314-694-5557 E-mail: safety.datasheet@monsanto.com

1.4. Emergency numbers

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted). FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

2. HAZARDS IDENTIFICATION

2.1. Classification

OSHA Hazard Communication Standard, 29 CFR 1910.1200 (2012) Not classified as hazardous.

2.2. Appearance and odour (colour/form/odour)

Whitish / Granules, (free-flowing) / Odourless

2.3. OSHA Status

This product is not hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Refer to section 11 for toxicological and section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient

N-[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-2-(ethylsulfonyl)imidazo[1,2-a]pyridine-3-sulfonamide; {Sulfosulfuron}

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Composition

COMPONENT	CAS No.	% by weight (approximate)	
Sulfosulfuron	141776-32-1	75	
Other ingredients		25	

The specific chemical identity is being withheld because it is trade secret information of Monsanto Company.

4. FIRST AID MEASURES

Use personal protection recommended in section 8.

4.1. Description of first aid measures

- **4.1.1.** Eye contact: If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.
- 4.1.2. Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- 4.1.3. Inhalation: If inhaled, move person to fresh air. If person is not breathing, call emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
- 4.1.4. Ingestion: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison center or doctor. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

- 4.2.1. Eye contact, short term: May cause temporary eye irritation.
- 4.2.2. Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
- 4.2.3. Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
- 4.2.4. Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.3. Indication of any immediate medical attention and special treatment needed

4.3.1. Medical conditions aggravated by exposure: None.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Recommended: Water, foam, dry chemical, carbon dioxide (CO2)

5.2. Special hazards

5.2.1. Unusual fire and explosion hazards

Minimise use of water to prevent environmental contamination.

Environmental precautions: see section 6.

5.2.2. Hazardous products of combustion

Carbon monoxide (CO), carbon dioxide (CO2), sulphur oxides (SOx), nitrogen oxides (NOx), ammonia (NH3)

5.3. Fire fighting equipment: Self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

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5.4. Flash point

Not applicable.

6. ACCIDENTAL RELEASE MEASURES

6.1. Environmental precautions

SMALL QUANTITIES:

Low environmental hazard.

LARGE QUANTITIES:

Minimise spread.

Keep out of drains, sewers, ditches and water ways.

6.2. Methods for cleaning up

SMALL QUANTITIES:

Sweep, scoop or vacuum to remove.

Wash spill area with detergent and water.

LARGE QUANTITIES:

Dig up heavily contaminated soil.

Refer to section 7 for types of containers.

Collect in containers for disposal.

Flush residues with small quantities of water.

Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

7.1. Precautions for safe handling

Avoid contact with eyes, skin and clothing. When using do not eat, drink or smoke. Avoid breathing dust. Wash hands thoroughly after handling or contact. Wash contaminated clothing before re-use. Thoroughly clean equipment after use. Do not contaminate drains, sewers and water ways when disposing of equipment rinse water. Refer to section 13 of the safety data sheet for disposal of rinse water.

7.2. Conditions for safe storage

Maximum storage temperature: < 120 °F

Compatible materials for storage: stainless steel, galvanised steel, unlined mild steel, Heresite[TM]-lined steel, mild steel, aluminium, fibreglass, plastic, polyvinylidene difluoride (PVDF), polypropylene (PP), high-density polyethylene (HDPE)

Incompatible materials for storage: none known.

Keep out of reach of children.

Keep away from food, drink and animal feed.

Keep only in the original container.

Keep container tightly closed in a cool, well-ventilated place.

Keep container off wet floors.

Minimum shelf life: 2 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Airborne exposure limits

Components	Exposure Guidelines
Sulfosulfuron	No specific occupational exposure limit has been established.
Other ingredients	No specific occupational exposure limit has been established.

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8.2. Engineering controls: No special requirement when used as recommended.

8.3. Recommendations for personal protective equipment

- **8.3.1.** Eye protection: If there is significant potential for contact: Wear dust goggles.
- **8.3.2.** Skin protection: No special requirement when used as recommended. Applicators and other handlers must wear: Wear long sleeved shirt, long pants and shoes with socks. Keep and wash personal protective equipment separately from other laundry. If no such instructions for washables, use detergent and hot water.
- **8.3.3. Respiratory protection:** No special requirement when used as recommended.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Whitish
Odour:	Odourless
Form:	Granules, (free-flowing)
Physical form changes (melting, bo	iling, etc.):
Melting point:	No data.
Boiling point:	Not applicable.
Flash point:	Not applicable.
Explosive properties:	No explosive properties
Auto ignition temperature:	Does not self-ignite.
Self-accelerating decomposition temperature (SADT):	No data.
Oxidizing properties:	none
Specific gravity:	Not applicable.
Particle size:	> 99.5 % Mesh size 40
Vapour pressure:	No significant volatility.
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	Not applicable.
Kinematic viscosity:	Not applicable.
Density:	33.8 lb/ft3; (loose bulk density)
Solubility:	Water: Soluble
pH:	5.5 @ 10 g/l
Partition coefficient:	log Pow: < 1 (sulfosulfuron)

10. STABILITY AND REACTIVITY

10.1. Stability

Stable under normal conditions of handling and storage.

Hazardous polymerization: Does not occur.

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10.2. Incompatible materials

none known.;

Compatible materials for storage: see section 7.2.

10.3. Hazardous decomposition

Thermal decomposition: Hazardous products of combustion: see section 5.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Likely routes of exposure: eye contact, Skin contact, inhalation

Potential health effects

Eye contact, short term: May cause temporary eye irritation.

Skin contact, short term: Not expected to produce significant adverse effects when recommended use

instructions are followed.

Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions

are followed.

Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are

followed.

Data obtained on product, similar products and on components are summarized below.

Skin irritation

Rabbit, 6 animals, Draize test:

Days to heal: 0

Primary Irritation Index (PII): 0.0/8.0

No skin irritation.

Eye irritation

Rabbit, 6 animals, OECD 405 test:

Days to heal: 3 Slight irritation.

Similar formulation

Acute oral toxicity

Rat, LD50: > 5,000 mg/kg body weight

Practically non-toxic. No mortality.

Acute dermal toxicity

Rat, LD50: > 5,000 mg/kg body weight

Practically non-toxic. No mortality.

Acute inhalation toxicity

Rat, LC50, 4 hours, dust: > 2.6 mg/L

Practically non-toxic.

Skin sensitization

Guinea pig, maximisation test:

Positive incidence: 0 %

Active ingredient

Genotoxicity

Not genotoxic.

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Carcinogenicity

Urinary bladder tumours in rats and mice. Mode(s) of action not relevant to humans.

Reproductive/Developmental Toxicity

No reproductive effects in rats.

No developmental effects in rats or rabbits.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on similar products and on components are summarized below.

Similar formulation

Aquatic toxicity, fish

Rainbow trout (Oncorhynchus mykiss):

Acute toxicity (limit test), 96 hours, static, LC50: > 97 mg/L No more than slightly toxic.

Similar formulation

Aquatic toxicity, invertebrates

Water flea (Daphnia magna):

Acute toxicity (limit test), 48 hours, static, EC50: > 144 mg/L

Practically non-toxic.

Aquatic toxicity, algae/aquatic plants

Green algae (Pseudokirchneriella subcapitata):

Acute toxicity, 72 hours, static, EC50: 71.4 µg/L

Very highly toxic.

Duckweed (Lemna gibba):

Acute toxicity, 7 day, semi-static, ErC50 (frond number): 1.20 µg/L

Very highly toxic.

Duckweed (Lemna gibba):

Acute toxicity, 7 day, semi-static, NOEC: 0.27 µg/L

Very highly toxic.

Arthropod toxicity

Honey bee (Apis mellifera):

Contact, 48 hours, LD50: > 123 µg/bee

Practically non-toxic.

Honey bee (Apis mellifera):

Oral, 48 hours, LD50: > 128 µg/bee

Practically non-toxic.

Active ingredient

Avian toxicity

Bobwhite quail (Colinus virginianus):

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet

Practically non-toxic.

Mallard duck (Anas platyrhynchos):

Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet

Practically non-toxic.

Bobwhite quail (Colinus virginianus):

Acute oral toxicity, single dose, LD50: > 2,250 mg/kg body weight

Practically non-toxic.

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Mallard duck (Anas platyrhynchos):

Acute oral toxicity, single dose, LD50: > 2,250 mg/kg body weight

Practically non-toxic.

Soil organism toxicity, invertebrates

Earthworm (Eisenia foetida):

Acute toxicity (limit test), 14 days, LC50: > 848 mg/kg dry soil

Bioaccumulation

No significant bioaccumulation is expected.

Dissipation

Soil, field:

Half life: 11 - 47 days Water, aerobic:

Half life: 16 - 20 days

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product

Keep out of drains, sewers, ditches and water ways. Recycle if appropriate facilities/equipment available. Burn in proper incinerator. Follow all local/regional/national/international regulations.

13.1.2. Container

See the individual container label for disposal information. Emptied packages retain product residue and dust. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Empty packaging completely. Store for collection by approved waste disposal service. Ensure packaging cannot be reused. Do NOT re-use containers. Recycle if appropriate facilities/equipment available. Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

14.1. US Dept. of Transportation (DOT) Hazardous Materials Regulations (49 CFR Parts 105-180)

14.1.1. Special provisions

This material meets the definition of a marine pollutant.

Non-bulk packagings are NOT hazardous via US domestic land transportation.

14.2. IMDG Code

14.2.1. Note

Use description for ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., LIMITED QUANTITY

14.3. IATA/ICAO

14.3.1. Note

Use description for ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

15. REGULATORY INFORMATION

15.1. Environmental Protection Agency

15.1.1. TSCA Inventory

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Exempt

15.1.2. SARA Title III Rules

Section 311/312 Hazard Categories: Immediate

Section 302 Extremely Hazardous Substances: Not applicable.

Section 313 Toxic Chemical(s): Not applicable.

15.1.3. CERCLA Reportable quantity

Not applicable.

15.1.4. Federal Insecticide, Fungicide, Rodenticide Act (FIFRA)

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!

CAUSES MODERATE EYE IRRITATION

Skin irritation: FIFRA category IV.
Eye irritation: FIFRA category III.
Acute oral toxicity: FIFRA category IV.
Acute dermal toxicity: FIFRA category IV.
Acute inhalation toxicity: FIFRA category IV.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.

Follow all local/regional/national/international regulations.

Please consult supplier if further information is needed.

In this document the British spelling was applied.

|| Significant changes versus previous edition.

This Safety Data Sheet has been prepared following the Regulation (EC) No. 1907/2006 (Annex II) as last amended by Regulation (EC) No. 453/2010

Data provided in this Safety Data Sheet are for the product as supplied unless otherwise indicated.

Health Flammability Instability Additional Markings
NFPA 1 1 1 1
0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest Observed Effect Concentration), LOAEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Effect Level), MOAEC (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for

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employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, MONSANTO Company or any of its subsidiaries makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will MONSANTO Company or any of its subsidiaries be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR TO THE PRODUCT TO WHICH INFORMATION REFERS.

00000012692 End of document



SPECTICLE® FLO HERBICIDE

Version 2.1 / USA 102000025126

Revision Date: 10/02/2017 Print Date: 07/16/2019

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name

SPECTICLE® FLO HERBICIDE

Product code (UVP)

80193424, 85850822

SDS Number

102000025126

EPA Registration No.

432-1608

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

Use

Herbicide

Restrictions on use

See product label for restrictions.

Information on supplier

Supplier

Bayer Environmental Science

2 T.W. Alexander Drive

Research Triangle PK, NC 27709

USA

Responsible Department

Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information

1-800-331-2867

Telephone Number

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Acute toxicity(Inhalation): Category 4

Specific target organ toxicity - repeated exposure: Category 2

Labelling in accordance with regulation HCS 29CFR §1910.1200





Signal word: Warning

Hazard statements

Harmful if inhaled.

May cause damage to organs (Nervous system) through prolonged or repeated exposure.

Precautionary statements



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Do not breathe spray. Do not breathe mist.

Use only outdoors or in a well-ventilated area.

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

Call a POISON CENTER/doctor/physician if you feel unwell.

Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)

No health hazards not otherwise classified. No physical hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name CAS-No. Concentration % by weight

 Indaziflam
 950782-86-2
 7.4

 1,2-Propanediol
 57-55-6
 8.36

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice When possible, have the product container or label with you when

calling a poison control center or doctor or going for treatment.

Inhalation Move to fresh air. If person is not breathing, call 911 or an ambulance,

then give artificial respiration, preferably mouth-to-mouth if possible.

Call a physician or poison control center immediately.

Skin contact Take off contaminated clothing and shoes immediately. Wash off

immediately with plenty of water for at least 15 minutes. Call a

physician or poison control center immediately.

Eye contact Hold eye open and rinse slowly and gently with water for 15-20

minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center

immediately.

Ingestion Call a physician or poison control center immediately. Rinse out mouth

and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim

unattended.

Most important symptoms and effects, both acute and delayed

Symptoms No symptoms known or expected.

Indication of any immediate medical attention and special treatment needed

Treatment Appropriate supportive and symptomatic treatment as indicated by the

patient's condition is recommended. There is no specific antidote.



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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Water spray, Foam, Carbon dioxide (CO2), Dry chemical

Unsuitable None known.

Special hazards arising from the substance or

mixture

Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective

equipment for firefighters

Firefighters should wear NIOSH approved self-contained breathing

apparatus and full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Cool closed

containers exposed to fire with water spray. Do not allow run-off from

fire fighting to enter drains or water courses.

Flash point No data available

Auto-ignition temperature No data available Lower explosion limit No data available Upper explosion limit No data available **Explosivity** Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact

with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid Methods for cleaning up

binder, universal binder, sawdust). Collect and transfer the product

into a properly labelled and tightly closed container. Clean

contaminated floors and objects thoroughly, observing environmental

regulations.

Additional advice Use personal protective equipment. If the product is accidentally

spilled, do not allow to enter soil, waterways or waste water canal. Do

not allow product to contact non-target plants.

Reference to other sections Information regarding safe handling, see section 7.

Information regarding personal protective equipment, see section 8.

Information regarding waste disposal, see section 13.



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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Handle and open container in a

manner as to prevent spillage.

Hygiene measures

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or

applying cosmetics.

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before

using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Protect from freezing.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Indaziflam	950782-86-2	0.56 mg/m3 (TWA)		OES BCS*
1,2-Propanediol (Aerosol.)	57-55-6	10 mg/m3 (TWA)	2010	WEEL

^{*}OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in

accordance with the appropriate regulatory standards and/or industry

recommendations.

Hand protection

Chemical resistant nitrile rubber gloves

Eve protection

Tightly fitting safety goggles

Skin and body protection

Wear long-sleeved shirt and long pants and shoes plus socks.



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General protective measures

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid

water

Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

white to beige

Physical State

Liquid

Odor

characteristic

Odour Threshold

No data available

pΗ

5.0 - 8.0 at 10 % (23 °C) (deionized water)

Vapor Pressure

No data available

Vapor Density (Air = 1)

No data available

Density

1.01 g/cm3 at 20 °C

Evaporation rate

No data available

Boiling Point

No data available

Melting / Freezing Point

No data available

Water solubility

soluble

Minimum Ignition Energy

Not applicable

Decomposition

No data available

temperature

Partition coefficient: n-

octanol/water

No data available

Viscosity

300 - 900 cps at 25 °C

Flash point

No data available

Auto-ignition temperature

No data available

Lower explosion limit

No data available

Upper explosion limit

No data available

Explosivity

Not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition

No data available

Chemical stability

Stable under recommended storage conditions.



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Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid freezing

Incompatible materials No data available

Hazardous decomposition

products

Thermal decomposition can lead to release of:

Hydrogen cyanide (hydrocyanic acid)

Hydrogen fluoride Carbon monoxide Nitrogen oxides (NOx)

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Ingestion, Inhalation, Eye contact, Skin contact

Immediate Effects

Eye May cause mild irritation to eyes.

Skin May cause mild irritation to the skin.

Information on toxicological effects

Acute oral toxicity LD50 (female Rat) > 5,000 mg/kg

Acute inhalation toxicity LC50 (male/female combined Rat) > 2.09 mg/l

Exposure time: 4 h

Determined in the form of liquid aerosol.

Acute dermal toxicity LD50 (male/female combined Rat) > 5,000 mg/kg

 Skin irritation
 slight irritation (Rabbit)

 Eye irritation
 Minimally irritating. (Rabbit)

 Sensitisation
 Non-sensitizing. (Guinea pig)

Assessment STOT Specific target organ toxicity – repeated exposure

Indaziflam caused neurobehavioral effects and/or neuropathological changes in subchronic studies in rats and dogs.

Assessment mutagenicity

Indaziflam was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Indaziflam was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.



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IARC

None.

OSHA

None

Assessment toxicity to reproduction

Indaziflam was not a primary reproductive toxicant in a two-generation study in rats.

Assessment developmental toxicity

Indaziflam did not cause developmental toxicity in rats and rabbits.

Further information

Only acute toxicity studies have been performed on the formulated product.

The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)) 0.572 mg/l

Exposure time: 96 h

The value mentioned relates to the active ingredient indaziflam.

Toxicity to aquatic

EC50 (Daphnia magna (Water flea)) > 9.88 mg/l

invertebrates

Exposure time: 48 h

The value mentioned relates to the active ingredient indaziflam.

Toxicity to aquatic plants

IC50 (Raphidocelis subcapitata (freshwater green alga)) 0.134 mg/l

Growth rate; Exposure time: 96 h

The value mentioned relates to the active ingredient indaziflam.

Biodegradability

Indaziflam:

Not rapidly biodegradable

Koc

Indaziflam: Koc: 496

Bioaccumulation

Indaziflam: Bioconcentration factor (BCF) 66

Does not bioaccumulate.

Mobility in soil

Indaziflam: Moderately mobile in soils

Environmental precautions

Do not apply directly to water, to areas where surface water is present

or to intertidal areas below the mean high water mark.

Do not contaminate surface or ground water by cleaning equipment or

disposal of wastes, including equipment wash water.

Do not allow to get into surface water, drains and ground water. Do not apply when weather conditions favor runoff or drift.

Drift or runoff from treated areas may adversely affect non-target plants.

Apply this product as specified on the label.



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SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Pesticide, spray mixture or rinse water that cannot be used according to

label instructions may be disposed of on site or at an approved waste

disposal facility.

Contaminated packaging Do not re-use empty containers.

Triple rinse containers.

Dispose of empty container in a sanitary landfill or by incineration, or, if

allowed by State/Provincial and local authorities, by burning.

If burned, stay out of smoke.

Follow advice on product label and/or leaflet.

RCRA Information Characterization and proper disposal of this material as a special or

hazardous waste is dependent upon Federal, State and local laws and

are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR Not dangerous goods / not hazardous material

IMDG

UN number 3082
Class 9
Packaging group III
Marine pollutant YES

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(INDAZIFLAM SOLUTION)

IATA

UN number 3082
Class 9
Packaging group III
Environm. Hazardous Mark YES

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(INDAZIFLAM SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: COMPOUNDS, TREE OR WEEDKILLING, N.O.I., other than

poison; HAVING A DENSITY OF GREATER THAN 20 LBS.

PER CUBIC FOOT



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SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1608

US Federal Regulations

TSCA list

1,2-Propanediol 57-55-6

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

1,2-Propanediol 57-55-6 MN, RI

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR Code of Federal Regulations, Title 49 ACGIH US. ACGIH Threshold Limit Values

ATE Acute toxicity estimate

CAS-Nr. Chemical Abstracts Service number

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

EINECS European inventory of existing commercial substances

ELINCS European list of notified chemical substances IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods

N.O.S. Not otherwise specified



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NTP

US. National Toxicology Program (NTP) Report on Carcinogens

OECD

Organization for Economic Co-operation and Development

TDG

Transportation of Dangerous Goods

TWA

Time weighted average

UN

United Nations

WHO

World health organisation

NFPA 704 (National Fire Protection Association):

Health - 2

Flammability - 1

Instability - 0

Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1

Flammability - 1

Physical Hazard - 0

PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Section 11: Toxicological Information.

Revision Date: 10/02/2017

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

LESCO Three-Way Selective Herbicide

EPA Reg. No.: **Product Type:**

10404-43 Herbicide

Company Name:

LESCO, Inc.

1385 East 36th Street Cleveland,

OH 44114-4114 1-800-347-4272

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,

Call CHEMTREC Day or Night: 1-800-424-9300

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not exactly the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

2. HAZARDS IDENTIFICATION

PHYSICAL HAZARDS:

None known.

HEALTH HAZARDS:

Serious eye damage Category 1 Acute toxicity, oral Category 4 Skin Sensitization Category 1

ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute Category 2 Hazardous to aquatic environment, chronic Category 2

SIGNAL WORD:

DANGER

HAZARD STATEMENTS:

Causes serious eye damage. Harmful if swallowed. May cause an allergic skin reaction. Toxic to aquatic life with long-lasting effects.







PRECAUTIONARY STATEMENTS

Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear eye protection and protective gloves. Avoid breathing mist, vapors, or spray. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice. Wash contaminated clothing before reuse.

Collect spillage.

Dispose of contents in accordance with local, state, and federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid	2008-39-1	29.6 - 31.5
Dimethylamine Salt of Mecoprop-p Acid	66423-09-4	7.75 - 8.6
Dimethylamine Salt of Dicamba (3,6-Dichloro-o-Anisic Acid)	2300-66-5	2.6 - 2.9
Other Ingredients	Trade Secret	Trade Secret

Synonyms: Herbicide Mixture of 2,4-D DMA, Mecoprop-p (MCPP-p) DMA and Dicamba

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get immediate medical attention.

If Swallowed: Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. If symptoms develop, get medical advice.

If Inhaled: Move person to fresh air. If breathing is difficult, administer oxygen. If symptoms develop, get medical advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. If irritation or rash occurs, get medical advice.

Most important symptoms/effects, acute and delayed: Causes severe eye irritation with possible eye damage. May be harmful if swallowed. May cause allergic skin reaction (sensitization).

Indication of immediate medical attention and special treatment needed, if necessary: Get immediate medical attention for eye contact. For ingestion there is no specific antidote available. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Firefighters should wear NIOSH approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as hydrogen chloride and oxides of carbon and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Clean-Up and Disposal: Pump any free liquid into an appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

HANDLING:

Do not get in eyes, on skin or on clothing. Users should wash hands, face and arms with soap before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and

LESCO Three-Way Selective Herbicide

change into clean clothing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

STORAGE:

Do not store near seed, fertilizer or other pesticides. Always use original container to store pesticides in a secured warehouse or storage building. Store at temperatures above 32° F. If allowed to freeze, remix before using. This does not alter the product. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear face shield, goggles or safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, shoes plus socks and chemical-resistant gloves. Wear a chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposure to the concentrate. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

Component	OSI	OSHA		ACGIH	
	TWA	STEL	TWA	STEL	Unit
DMA Salt of 2,4-D	10*	NE	10* (inhalable, skin)	NE	mg/m ³
DMA Salt of Mecoprop-p	NE	NE	NE	NE	
DMA Salt of Dicamba	NE	NE	NE	NE	
Other Ingredients	NE	NE	NE	NE	

^{*}Based on adopted limit for 2,4-Dichlorophenoxyacetic acid

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:
Odor:
Odor threshold:
Dark brown liquid
Mild odor- slight phenolic
No data available

pH: 6.78(1% dispersion in DIW) **Melting point:** Liquid at room temperature

Initial boiling point and boiling range No data available

Flash point: Not applicable due to aqueous solution

Evaporation rate:

Flammability (solid, gas):

Upper/lower flammability or explosive limits:

Vapor pressure:

Vapor density:

Relative density:

No data available
No data available
No data available
No data available
1.127 g/cc @ 21° C

Solubility(ies): Soluble

Partition coefficient: n-octanol/water:

Autoignition temperature:

Decomposition temperature:

Viscosity:

No data available
No data available
No data available
7.95 cPs @ 21° C

VOC Emission Potential (%): 2.09

LESCO Three-Way Selective Herbicide

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: This product is not normally reactive.

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reaction: Will not occur.

Conditions to Avoid: Excessive heat. Do not store near heat or flame. **Incompatible Materials:** Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions, may produce gases such as hydrogen chloride

and oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION

Likely Routes Of Exposure: Eye and skin contact.

Symptoms of Exposure: Causes severe eye irritation and possible irreversible eye damage. Mildly irritating to the skin based on toxicity studies. Overexposure by skin absorption may cause symptoms similar to those for ingestion. Low inhalation toxicity based on toxicity studies. May be irritating to the respiratory tract. Overexposure by inhalation may cause symptoms similar to those from ingestion. Harmful if swallowed. May cause nausea, vomiting, abdominal pain, decreased blood pressure, muscle weakness, muscle spasms.

Delayed, immediate and chronic effects of exposure: Repeated or prolonged skin exposure may cause allergic skin reaction (sensitization).

Toxicological Data:

Data from laboratory studies conducted on this formulation:

Oral, Rat LD₅₀: 1,697 mg/kg

Dermal, Rat or Rabbit LD₅₀: >5,000 mg/kg

Inhalation, Rat 4-hr LC₅₀: >2.14 mg/L (no mortalities at highest dose tested)

Eye Irritation, Rabbit: Corrosive Skin Irritation, Rabbit: Slightly irritating

Skin Sensitization, Guinea Pig: Not considered to be a contact sensitizer

Subchronic (Target Organ) Effects: Repeated overexposure to phenoxy herbicides may cause effects to liver, kidneys, blood chemistry, and gross motor function. Rare cases of peripheral nerve damage have been reported, but extensive animal studies have failed to substantiate these observations, even at high doses for prolonged periods. Repeated overexposure to dicamba may cause liver changes or a decrease in body weight.

Carcinogenicity / Chronic Health Effects: The International Agency for Research on Cancer (IARC) lists exposure to chlorophenoxy herbicides as a class 2B carcinogen, the category for limited evidence for carcinogenicity in humans. However, more current 2,4-D lifetime feeding studies in rats and mice, as well as an MCPP lifetime feeding study in rats, did not show carcinogenic potential. Dicamba did not cause cancer in long-term animals studies. The U.S. EPA has given 2,4-D and dicamba a Class D classification (not classifiable as to human carcinogenicity).

Reproductive Toxicity: No impairment of reproductive function attributable to 2,4-D has been noted in laboratory animal studies. Animal tests with dicamba have not demonstrated reproductive effects.

Developmental Toxicity: Studies in laboratory animals with 2,4-D and MCPP have shown decreased fetal body weights and delayed development in the offspring at doses toxic to mother animals. Animal tests with dicamba have not demonstrated developmental effects.

Genotoxicity: There have been some positive and some negative studies, but the weight of evidence is that neither 2,4-D nor MCPP is mutagenic. Animal tests with dicamba have not demonstrated mutagenic effects.

Assessment Carcinogenicity:

This product contains substances that are considered to be probable or suspected human carcinogens as follows:

	Regulatory Agency Listing As Carcinogen			
Component	ACGIH	IARC	NTP	OSHA
Chlorophenoxy Herbicides (2,4-D, MCPP)	No	2B	No	No
DMA Salt of Dicamba	No	No	No	No
Other Ingredients	No	No	No	No

12. ECOLOGICAL INFORMATION

Environmental Hazards:

This pesticide may be toxic to fish and aquatic invertebrates and may adversely affect non-target plants.

Ecotoxicity:

Data on 2,4-D Dimethylamine Salt:

96-hour LC ₅₀ Bluegill:	524 mg/l	Bobwhite Quail Oral LD ₅₀ :	500 mg/kg
96-hour LC ₅₀ Rainbow Trout:	250 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>5,620 ppm
48-hour EC ₅₀ Daphnia:	184 mg/l		The Branch and the Control of the Co

Data on Mecoprop-p Dimethylamine Salt:

96-hour LC ₅₀ Bluegill:	112 mg/l	Bobwhite Quail Oral LD ₅₀ :	>5600 ppm
96-hour LC ₅₀ Rainbow Trout	111 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	625 ppm
48-hour EC ₅₀ Daphnia:	256 mg/l	72-hour EC ₅₀ Green Algae:	100 mg/l

Data on Dicamba Acid:

96-hour LC ₅₀ Bluegill:	135 mg/l	Bobwhite Quail 8-day Dietary LC50:	>10,000 ppm
96-hour LC ₅₀ Rainbow Trout:	135 mg/l	Mallard Duck 8-day Dietary LC ₅₀ :	>10,000 ppm
48-hour EC ₅₀ Daphnia:	110 mg/l	ate found in agent of the state of some in the Fig The CM of set-equal Fig The CM of set-equal Fig	0 30 30 30 30 30

Environmental Fate:

In laboratory and field studies, 2,4-D DMA salt rapidly dissociated to parent acid in the environment. The typical half-life of the resultant 2,4-D acid ranged from a few days to a few weeks. Mecoprop-p DMA rapidly dissociates to parent mecoprop-p in the environment. In soil, mecoprop-p is microbially degraded with a typical half-life of approximately 11 to 15 days. Dicamba has low bioaccumulation potential, is not persistent in soil, is highly mobile in soil and degrades rapidly.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Pesticide wastes are toxic. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed, labeled container for proper disposal. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling and Disposal:

Nonrefillable Containers 5 Gallons or Less: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Containers Larger than 5 Gallons: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

LESCO Three-Way Selective Herbicide

Refillable Container Larger than 5 Gallons: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

DOT:

≤ 41 gallons per completed package

Non Regulated

> 41 gallons per completed package

UN 3082, Environmentally hazardous substances, liquid, n.o.s., (2,4-D Salt), 9, III, RQ

IMDG

Non Regulated

IATA

Non Regulated

15. REGULATORY INFORMATION

EPA FIFRA INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

DANGER. Corrosive, causes irreversible eye damage. Do not get in eyes, or on skin or clothing. Harmful if swallowed.

U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Acute Health

Section 313 Toxic Chemical(s):

Dimethylamine Dicamba (CAS No. 2300-66-5), 2.6 – 2.9% by weight in product

Reportable Quantity (RQ) under U.S. CERCLA:

Dimethylamine Dicamba (CAS No. 2300-66-5) None given

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

6. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 3 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

LESCO Three-Way Selective Herbicide

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, LESCO, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will LESCO, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue:

May 18, 2015

Supersedes:

March 6, 2015

Three-Way is a registered trademark of LESCO, Inc.

SAFETY DATA SHEET LESCO Crosscheck® Plus Multi-Insecticide

SDS #: 1349-2-A

Revision date: 2015-03-03

Format: NA Version 1



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name LESCO Crosscheck® Plus Multi-Insecticide

Other means of identification

Product Code(s) 1349-2-A

Active Ingredient(s) Bifenthrin

Chemical Family Pyrethroid Pesticide

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide

Restrictions on Use: Use as recommended by the label

Manufacturer Address

LESCO, Inc. 1385 E. 36th Street Cleveland, OH 44114-4114

(800) 347-4272 (General Information)

Emergency telephone number

Medical Emergencies:

1 800 / 331-3148 (PROSAR - U.S.A. & Canada)

1 651 / 632-6793 (PROSAR - All Other Countries - Collect)

For leak, fire, spill or accident emergencies, call:

1 800 / 424 9300 (CHEMTREC - U.S.A.)

1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Acute toxicity - Oral	Category 4	
Acute toxicity - Inhalation (Dusts/Mists)	Category 4	
Carcinogenicity	Category 2	
Specific target organ toxicity (single exposure)	Category 1	
Specific target organ toxicity (repeated exposure)	Category 1	

SDS #: 1349-2-A

Revision date: 2015-03-03

Version 1

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Danger

Hazard Statements

- H302 Harmful if swallowed
- H332 Harmful if inhaled
- H351 Suspected of causing cancer
- H370 Causes damage to organs
- H372 Causes damage to organs through prolonged or repeated exposure



Precautionary Statements - Prevention

- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P281 Use personal protective equipment as required
- P264 Wash face, hands and any exposed skin thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P260 Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

- P321 Specific treatment (see supplemental first aid instructions on this label)
- P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P312 Call a POISON CENTER or doctor if you feel unwell
- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
- P330 Rinse mouth

Precautionary Statements - Storage

P405 - Store locked up

Precautionary Statements - Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family

Pyrethroid Pesticide.

Synonyms are provided in Section 1.

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4. FIRST AID MEASURES

Eye Contact Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove

contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison

control center or doctor for further treatment advice.

Skin Contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20

minutes. Call a poison control center or doctor for further treatment advice.

Inhalation Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial

respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for

further treatment advice.

Ingestion If swallowed, do not induce vomiting - seek medical advice Call a poison control center or

> doctor immediately for treatment advice Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor Do not give

anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed Central nervious system effects.

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

Treat symptomatically. This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Foam. Carbon dioxide (CO₂). Dry chemical. Soft stream or water fog only if necessary.

Specific Hazards Arising from the

Chemical Explosion data

Sensitivity to Mechanical Impact

Sensitivity to Static Discharge

Not sensitive. Not sensitive.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Isolate and post spill area. Wear suitable protective clothing, gloves and eye/face

protection. For personal protection see section 8.

Other For further clean-up instructions call CHEMTREC listed in Section 1 "Product and Company

Identification" above.

Environmental Precautions Keep people and animals away from and upwind of spill/leak. Keep material out of lakes,

streams, ponds, and sewer drains.

Methods for Containment Dike to confine spill and absorb with non-combustible absorbent such as clay, sand or soil.

Methods for cleaning up Clean and neutralize spill area, tools and equipment by washing with bleach water and

soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled

prior to recycling or disposal. Dispose of waste as indicated in Section 13.

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Handling Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

Storage Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces

and sources of ignition. Keep out of reach of children and animals. Keep/store only in

original container.

Incompatible products None known

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Appropriate engineering controls

Engineering measures Apply technical measures to comply with the occupational exposure limits. When working in

confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for

breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment

Eye/Face Protection This product does not cause significant eye irriation or eye toxicity requiring special

protection. Where there is significant potential for eye contact, wear chemical goggles and

have eye flushing equipment available.

Skin and Body Protection Wear long-sleeved shirt, long pants, socks, and shoes.

Hand Protection Protective gloves

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Respiratory protection must be provided in

accordance with current local regulations.

Hygiene measures Clean water should be available for washing in case of eye or skin contamination. Wash

skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing

separately from regular household laundry.

protective equipment suppliers

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Beige, Liquid
Physical State Liquid
Color Beige
Odor Mild

Odor threshold No information available

pH 6.7

Melting point/freezing point Not applicable

Boiling Point/Range No information available

Flash point > 100 °C / > 212 °F Tag Closed Cup

Evaporation Rate
Flammability (solid, gas)
Flammability Limit in Air

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Upper flammability limit:
Lower flammability limit:
No information available
No information available
Vapor pressure
Vapor density
No information available
No information available

Density 8.53 lb/gal 1.024 @ 20 °C Specific gravity Water solubility Dispersible in water Solubility in other solvents No information available Partition coefficient No information available Autoignition temperature No information available Decomposition temperature No information available Viscosity, kinematic No information available Viscosity, dynamic No information available **Explosive properties** No information available Oxidizing properties No information available Molecular weight No information available

Bulk density 8.53 lb/gal

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions

Chemical Stability Stable under recommended storage conditions.

Possibility of Hazardous Reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid Heat, flames and sparks

Incompatible materials None known.

Hazardous Decomposition Products Carbon oxides (COx), Hydrogen chloride, Hydrogen fluoride, Chlorine, Fluorine,

11. TOXICOLOGICAL INFORMATION

Product Information

 LD50 Oral
 632 mg/kg (rat)

 LD50 Dermal
 > 2000 mg/kg (rabbit)

 LC50 Inhalation
 2.895 mg/L 1 hr (rat)

Serious eye damage/eye irritation
Skin corrosion/irritation
Sensitization
Non-irritating.
Non-sensitizing.
Non-sensitizing.

Information on toxicological effects

Symptoms Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including

convulsions, tremors and bloody nasal discharge.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity Bifenthrin: Long-term exposure caused neurotoxicity (tremors and impaired gait) in the early

exposure in animal studies, but tremors disappeared with continued exposure.

Mutagenicity Bifenthrin: Not genotoxic in animal studies

Carcinogenicity Bifenthrin: No evidence of carcinogenicity from animal studies.

Neurological effects

Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive

salivation) following acute or subchronic exposure. Tremors disappeared with continued

exposure.

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Reproductive toxicity

Bifenthrin: No toxicity to reproduction in animal studies.

Developmental toxicity

Bifenthrin: Not teratogenic in animal studies.

STOT - single exposure

Causes damage to organs. See listed target organs below.

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure. See listed target

organs below.

Target organ effects

Bifenthrin: Central Nervous System (CNS).

Neurological effects

Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive

salivation) following acute or subchronic exposure. Tremors disappeared with continued

exposure.

Aspiration hazard

No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Persistence and degradability

Bifenthrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.

Bioaccumulation

Bifenthrin: The substance has a potential for bioconcentration.

Mobility

Bifenthrin: Immobile. Not expected to reach groundwater.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate

disposal authorities for guidance.

Contaminated Packaging

Containers must be disposed of in accordance with local, state and federal regulations.

Refer to the product label for container disposal instructions.

14. TRANSPORT INFORMATION

DOT

This material is not a hazardous material as defined by U.S. Department of Transportation

at 49 CFR Parts 100 through 185.

TDG

Classification below is only applicable when shipped by vessel and is not applicable when

shipped by road or rail only.

UN/ID no

UN3082

Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s.

Hazard class

9

Packing Group

111

Marine Pollutant Description

UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9 PG III

ICAO/IATA

UN/ID no

UN3082

Bifenthrin.

Proper Shipping Name

Environmentally hazardous substance, liquid, n.o.s.

Hazard class **Packing Group**

Special Provisions

30 ka G

When shipped by air within the USA, this product is not regulated as a Marine Pollutant in non-bulk packages and does not require identification as a Marine Pollutant; however,

when shipped by air within, to and/or from ADR signatory countries, identific

Description

UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9 PG III

Limited quantity

IMDG/IMO

SDS #: 1349-2-A

Revision date: 2015-03-03

Version 1

UN/ID no UN3082

Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.

Hazard class 9
Packing Group III
EmS No. F-A, S-F
Marine Pollutant Bifenthrin

Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9 PG III

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values %
Bifenthrin - 82657-04-3	82657-04-3	7.9	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes	
Chronic health hazard	Yes	
Fire hazard	No	
Sudden release of pressure hazard	No	
Reactive Hazard	No	

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

<u>CERCLA</u>

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

FIFRA Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Harmful if swallowed, inhaled or absorbed through skin.

This pesticide is extremely toxic to fish and aquatic invertebrates.

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals::

Chemical name	California Prop. 65	
Sodium o-phenylphenate - 132-27-4	Carcinogen	

U.S. State Right-to-Know Regulations

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Chemical name	New Jersey	Massachusetts	Pennsylvania
Bifenthrin 82657-04-3	X		
Propylene glycol 57-55-6	Х		X

International Inventories

Mexico - Grade

Moderate risk, Grade 2

WHMIS Hazard Class

D2B - Toxic materials



16. OTHER INFORMATION

NFPA	Health Hazards	2	Flammability 0	Instability 0	Special Hazards -
HMIS	Health Hazards	2*	Flammability 0	Physical hazard 0	Personal Protection X

^{*}Indicates a chronic health hazard.

Revision date: Revision note 2015-03-03 Format Change

Disclaimer

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Prepared By:

FMC Corporation

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Issuing Date:

2014-05-05

End of Safety Data Sheet