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SAFETY DATA SHEET

This Safety Data Sheet was created pursuant to the requirements of:
The Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

TRIFLUREX 480 EC

Revision date: 18 March-2022 **Version:** 5 **Supersedes Date:** 25-June-2014

Print date: 18-March-2022

1. Product and Company Identification

Identification of the product/preparation

Product Name	TRIFLUREX 480 EC
Trade Name/Synonyms	None
Registration Number	L5350
Product Description and Formulation Type	A selective emulsifiable concentrate herbicide for pre-plant soil incorporation. Used for the control of annual grasses and some broadleaf weeds in crops.

Active Ingredient

Trifluralin (96%)

Formula	$C_{13}H_{16}F_3N_3O_4$
CAS Number	1582-09-8

Supplier, Manufacturer, and/or Importer

Supplier

Company Name	ADAMA SOUTH AFRICA (PTY) LTD
Address	Ground Floor, Simeka House The Vineyards Office Estate 99 Jip de Jager Drive Belville 7530
Phone Number	+27 21 982 1460
Web-Address	www.adama.com

Emergency Phone Numbers

Nature of Emergency	Emergency Operator	Telephone Number
24 Hour Poisoning Emergency Helplines – National Advisory Bodies	Griffon Poison Information Centre	+27(0)82 446 8946
	Tygerberg Poison Information Centre:	+27(0)21 931 6129
Spill Response and Transport Incidents	SPILL TECH®	+27(0)86 100 0366 +27 (0)83 253 6618
Product Properties and Hazards	ADAMA South Africa (Pty) Ltd	+27(0)21 982 1460

Relevant identified uses of the product and uses advised against

TRIFLURALIN 480 EC is a pre-plant, soil incorporated herbicide for the pre-emergence and long lasting control of annual grasses and certain broad leaf weeds in agricultural and horticultural crops. The product is for professional use only.

2. Hazard(s) Identification

Classification of the substance or mixture

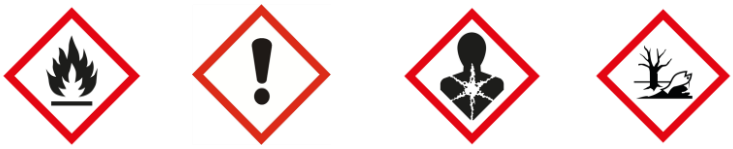
This product is classified as hazardous according to the criteria in South Africa - GHS classification and labelling of chemicals – SANS10234 and the Regulations for Hazardous Chemical Agents - 2021.

GHS Classification:

Hazard Class	Category	Hazard Statement Number
Flammable Liquids	3	H226
Skin Corrosion/Irritation	2	H315
Serious Eye Damage/Irritation	2	H319
Sensitization - Skin	1	H317
Carcinogenicity	2	H351
Acute Aquatic Toxicity	1	H400
Chronic Aquatic Toxicity	1	H410

Label Elements

Pictograms:



Signal Word:

Warning

Hazard Statements:

Statement Number	Hazard Statement
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention -

Statement Number	Precautionary Statement
P203	Obtain, read and follow all safety instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion proof electrical, ventilation, lighting and other equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 + P265	Wash hands and face thoroughly after handling. Do not touch eyes.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves, protective clothing, and eye and face protection.

Response -

Statement Number	Precautionary Statement
P318	If exposed or concerned, get medical advice.
P321	Specific treatment – see information on the label and Section 4 of this SDS.
P330	Rinse mouth.
P391	Collect spillage.
P302 + P352	IF ON SKIN: Wash with plenty of water under the safety shower.
P333 + P317	If skin irritation or rash occurs: Get medical help.
P337 + P317	If eye irritation persists: Get medical help.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire, use the available equipment to extinguish the fire.
P303 + P361 + P353	IF ON SKIN OR HAIR: Take off immediately all contaminated clothing. Rinse affected area/s under the safety shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage -

Statement Number	Precautionary Statement
P405	Store locked up.
P403 + P235	Store in a well ventilated place. Keep cool.

Disposal -

Statement Number	Precautionary Statement
P501	Dispose of contents/container to a licensed waste facility and in accordance with local and national regulatory requirements.

Other Hazards

Gives off irritating or toxic fumes (or gases) in a fire.

3. Composition/Information on Ingredients

Mixture

IUPAC/Chemical Name-Active ingredient: 2,6-dinitro-*N*,*N*-dipropyl-4-(trifluoromethyl)aniline
Chemical Family: Dinitroaniline
Formulation: Trifluralin 480g/L – Emulsifiable Concentrate

Ingredients with Hazard Concerns (GHS)

According to UN GHS criteria.

Hazardous Component – Chemical Name	CAS Number	Weight - %	International GHS Classification
Trifluralin (96%)	1582-09-8	48%	Carcinogenicity, Category 2. Skin Sensitization, Category 1. Aquatic Toxicity Acute, Category 1. Aquatic Toxicity, Chronic, Category 1.
Xylene	1330-20-7	30- 60%	Flammable Liquid, Category 3. Acute Toxicity, Dermal, Category 4. Acute Toxicity, Inhalation, Category 4. Skin Corrosion/Irritation, Category 2.
Ethyl Benzene	100-41-4	<10%	Flammable Liquid, Category 2. Acute Toxicity, Inhalation, Category 4. STOT - RE, Category 2 (hearing organs). Aspiration Hazard, Category1.
Calcium Dodecyl Benzene Sulphonate	90194-26-7	<10%	Skin Corrosion/Irritation, Category 2. Serious Eye Damage/Irritation, Category 1.

NOTE: The other ingredients do not cause or contrinute toward the correct GHS classification of TRIFLUREX 480 EC and are therefore, in terms of the South African Regulations for Hazardous Chemical Agents - 2021; Regulation 14(b), not listed in the table above.

4. First-Aid Measures

Description of First-aid Measures

General Advice

Acute exposure to TRIFLUREX 480 EC may require decontamination and life support for the victims. Provide this SDS to medical personnel for treatment. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination.
Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm and covered up. First Aid personnel should pay attention to their own safety.

Eye Contact

Immediately rinse/flush the eyes gently with water from the eye wash fountain for several minutes (at least 15 minutes), while holding the eyelids apart. Check for and remove contact lenses if easy to do so. Continue rinsing. Obtain medical attention if irritation occurs and persists.

Skin Contact	Remove all contaminated clothing and shoes. Rinse the skin immediately with plenty of water for 15 to 20 minutes under the safety shower. Contact a poison control centre or medical practitioner if irritation occurs or persists. Wash contaminated clothing before re-use.
Inhalation	Immediately remove the affected victim from exposure to an area with fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the product; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain medical attention if concerned or unwell.
Ingestion	Obtain immediate medical attention - call a poison control centre or medical practitioner immediately for treatment advice. If conscious, rinse mouth thoroughly with water. Never give anything by mouth to an unconscious or convulsing person. DO NOT induce vomiting unless directed to do so by a medical professional. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits. Rinse mouth.
Emergency Responders	Use Personal Protective equipment as required.

Most important symptoms/effects, acute and delayed

Acute health effects: None known.
Symptoms of exposure to the product could include redness and pain to the skin and eyes. Nausea and vomiting.
Long-term effects: Skin sensitization (allergic skin reaction).

Indication of any immediate medical attention and special treatment needed

Notes to physician:
No specific antidote. Treat symptomatically and supportively.

5. Fire-Fighting Measures

Suitable (and unsuitable) extinguishing media	For small fires - se dry chemical, carbon dioxide, water spray, or foam. For large fires – use foam, water fog or water spray. Contain fire control water for later disposal. Do not use high volume water jets due to potential contamination.
Specific hazards arising from the chemical including thermal decomposition products	Flammable. Fires involving the product may produce irritating or hazardous compounds of fluoride, nitrogen oxides (NO, NO_2), carbon oxides (CO, CO_2), or other products of combustion. Containers may explode in heat of fire. Flashback may occur along vapour trail.
Special protective equipment and precautions for fire-fighters	Firefighters must wear emergency equipment including positive pressure self-contained breathing apparatus with a full-face mask. Remove unaffected containers from fire area if possible.
Additional provisions	Stay at maximum distance. Act in accordance with the site's Internal Emergency Plan and the Workplace Specific Procedures for actions to be taken after an accident or other emergencies. Keep container cool by spraying with water.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures	Ventilate the area of the spill or leak, especially when in confined areas. Eliminate all ignition sources. Keep away from combustible material. Do not breathe in dust/fumes/vapour and avoid contact with eyes, skin and clothes. Evacuate personnel to a safe area when necessary. Do not touch or walk through spilled material as it could be slippery when spilt. Contain spills if it can be done without risk and clean-up immediately. Wear appropriate protective clothing recommended in Section 8 of the SDS.
Environmental precautions	Prevent spillage or further leakage if safe to do so. Do not allow the spilt product to enter water courses and drains and avoid contact with soil. Do not allow the spilt product to spread to other areas - keep the spilt material contained and isolated. Report spills and releases as required to appropriate authorities if the spilt product has caused environmental pollution (sewers, water ways, soil or air).
Methods for cleaning up	***For small spills***, sweep up with damp non-combustible absorbent material using spark-resistant tools. Place into a labelled waste container with a shovel and cover for subsequent disposal. Dispose of collected spilt material as hazardous waste. Clean the contaminated surface with water to remove any residues of the spilt product. Keep the wash water out of drains, sewers and waterways. ***For large spills***, do not wash away into sewers. Contain and collect spilt product in suitable containers for proper disposal.
Reference to other SDS sections	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

7. Handling and Storage

Precautions for safe handling	Wear protective clothing and equipment during handling as described in Section 8 of the SDS. Always provide good ventilation in the work area. Prevent contact with eyes and prolonged contact with skin and clothing. Do not breathe in vapours. Do not permit smoking in use or storage areas. Do not eat or drink during use. Wash the hands and face thoroughly with soap after handling. Keep containers closed when not in use. Ground and bond all transfer equipment. Locate emergency showers and eye-rinsing facility near the work/handling area. Maintain good normal industrial hygiene and housekeeping practices in areas where the product is used/handled. Remove contaminated clothing immediately if the product gets inside. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of work area and work clothing is recommended.

Keep unprotected persons away from the area where the product is being applied.

Conditions for safe storage, including any incompatibilities

Store away from potential ignition sources. The entrance to storage facilities should be granted only to appropriately trained personnel. Always store locked up and keep containers tightly closed when not in use. Store only in properly labelled containers. Check storage containers regularly for leaks.
The formulation is stable if stored well ventilated, out of direct sunlight, cool and free of moisture and high humidity. Keep out of reach of children, uninformed persons and animals. Protect containers from physical damage. Do not contaminate water, food, or feed by storage or disposal. Avoid cross contamination with other agricultural products.
Store away from incompatible materials like
It is recommended to have appropriate spill control kits equipped with absorbent material in close proximity to storage areas (see Section 6).
Store in accordance with national and local regulations.

8. Exposure Controls and Personal Protection

Components with workplace control parameters – National Occupational Exposure Limits

This product, as supplied, contains Xylene and Ethyl Benzene for which occupational exposure limits have been established by the South African Department of Labour and Employment.

Component	Type	Control Parameter	Update	Basis
Xylene	OEL-eight hour TWA	200 ppm	2021	South African RELs*
	OEL – STEL/C	300 ppm	2021	South African RELs*
Ethyl Benzene	OEL-eight hour TWA	100 ppm	2021	South African RELs*

*REL: Recommended Exposure Limit.
OEL-eight hour TWA: Occupational Exposure Limit- Time Weighted Average. Calculated over an eight-hour working day, for a five-day working week.
OEL-STEL/C: Occupational Exposure Limit – Short Term Exposure Limit /Ceiling Limit. Peak airborne concentration determined over the shortest analytically practicable period of time, which does not exceed 15 minutes.

A Biological Exposure Index for Ethyl Benzene has been established by the South African Department of Labour and Employment.

Component	Sample Matrix	Sample Time	Value
Ethyl Benzene	Urine	End of shift	0.15g/g creatinine

Appropriate engineering controls

Use with general or adequate local exhaust ventilation to maintain airborne concentrations and exposure below occupational exposure limits. Good

general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal Protective Equipment

Respiratory protection:

Respiratory protection selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respiratory equipment.
In operations where exposure levels are exceeded or expected to be high, an approved respirator (full face mask) with a particulate filter and an organic vapour cartridge or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration.
For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Skin and hand protection:

Select skin and hand protection based on the task being performed and the risks involved with the task.
Elbow length impervious chemical resistant gloves recommended for hand protection (e.g. butyl rubber, nitrile rubber, etc.). Consider the glove penetration time - information on glove penetration time is available from the manufacturer of the glove. The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).
Impervious coveralls, apron, shoes and socks as required to prevent skin contact and contamination of personal clothing. Overalls must be buttoned to the neck and sleeves worn over the gloves.

Eye/face protection:

Safety eyewear compliant with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or vapour. Splash resistant safety goggles and a full face shield are recommended if a full face respirator is not used.

General safety and hygiene measures:

The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained.
Handle the product in accordance with good industrial hygiene and safety practice.
An eye wash fountains and safety showers should be available and easily accessible.
Keep the product away from food, drink and animal feeding stuffs.
Wash the hands and/or face before breaks, eating, smoking or using the lavatory and at the end of the shift/working period.

Environmental exposure controls

In accordance with the local legislation for the protection of the environment it is recommended to avoid environmental spillage or releases of both the product and its container.

9. Physical and Chemical Properties

Unless otherwise stated, the data is applicable to the formulation.

Physical or Chemical Property		Value	Test Method or Remarks
Appearance	Appearance/physical state	Liquid	
	Odour characteristics	Aromatic (solvent)	
	Colour	Orange	
Volatility	Boiling point (°C)	137 - 143	Xylene (solvent)
	Vapour pressure (mPa) at 25°C	13.7	Trifluralin (ISO)
	Evaporation Rate at 20 ºC	Not determined	
Product Descriptors	Solubility in water (ppm at 25 °C)	Miscible	
	Decomposition temperature (°C)	Not determined	
	Melting point (°C)	Not applicable (liquid)	
	pH	5 - 6	
	Density (g/cm^3) at 20°C	1.05 ± 0.015	
	Bulk Density/relative density (g/L)	Not applicable	
	Particle characteristics	Not applicable - liquid	
	Log P octanol/water at 20°C	5.14	Trifluralin (ISO)
Flammability	Flammable (Y/N)	Flammable	
	Flash point (°C)	29	Closed Cup
	Flammable limits-LEL	Not determined	
	Flammability limits -UEL	Not determined	
	Auto-ignition Temperature (°C)	450	Xylene

Other Hazard Information

None

10. Stability and Reactivity

Reactivity	The product is not reactive under normal ambient and anticipated storage and handling conditions of temperature and pressure. Decomposes at elevated temperatures.
Chemical Stability	Hazardous polymerization will not occur. Stable under normal ambient conditions of use, storage and transport.
Possibility of Hazardous Reactions	None known under conditions of normal use.
Hazardous Decomposition Products	Does not decompose when used for intended uses. Can decompose under fire or during burning and at high temperatures releasing toxic oxides of nitrogen and carbon as well as toxic corrosive fumes of flourides.

Conditions to Avoid

Shock and Friction	Contact with Air	Heat and Ignition Sources	Sunlight	Humidity or Moisture Conditions
Not applicable	Avoid storage without ventilation.	Avoid exposing to excessive heat.	Do not store in direct sunlight.	Avoid moisture conditions during storage.

Incompatible Materials

Incompatable with:

Strong Acids	Water	Combustive Materials	Strong Alkalis	Other Incompatible Substances
Yes	Not applicable	Yes	Yes	Avoid strong oxidising agents.

11. Toxicological Information

Information on likely routes of exposure

The product is of low acute toxicity. It may be absorbed into the body by inhalation of vapour or spray. The product may come into contact with the skin or eyes.

Information on toxicological effects

Acute toxicity:

Specific test data for the product is not available. The classification is based on the data of the ingredients/components.

Product Information	Fatal	Toxic	Harmful	May be Harmful	Not classified
Ingestion - Oral					√
Dermal/Skin Contact					√

Inhalation √

Assessment of acute toxicity:

Product/ingredient Name	Dose Acute -	Species	Test Result
TRIFLUREX 480EC	>5 000mg/kg	Rat	$ATE_{(MIX)}$ Oral
TRIFLUREX 480EC	10 526mg/kg	Rat	$ATE_{(MIX)}$ Dermal
TRIFLUREX 480EC	>20mg/L	Rat (4h)	$ATE_{(MIX)}$ Inhalation *(Vapours)*

Irritation – Dermal/Skin and Eyes:
Assessment of irritation effects (skin/eyes):
Based on available data, the classification criteria are met for mild/moderate skin and sever eye irritation.
Xylene: Mild-moderate skin irritation was reported in rats and rabbits treated topically with mixed xylene or xylene isomers (ECHA). Repeated or prolonged skin contact could cause skin inflammation and defatting resulting in cracking and peeling - particularly after prolonged or repeated contact. Redness of the skin and blisters may also occur (ATSDR – Agency for Toxic Substances and Disease Registry – Medical Guidelines for Xylene).

Respiratory/Skin Sensitization:
Assessment of sensitization:
Based on available data, the classification criteria are met for skin sensitization.
Prolonged or repeated skin contact with Trifluralin may cause allergic dermatitis (U.S. National Library of Medicine. Hazardous Substances Databank. Bethesda, MD, 1995.10-9).

Germ cell mutagenicity:
Assessment of mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity:
Assessment of carcinogenicity:
Based on available data, the classification criteria are met.
Trifluralin - IARC: There is inadequate evidence in humans for the carcinogenicity of Trifluralin. There is limited evidence in experimental animals for the carcinogenicity of technical grade Trifluralin. Overall evaluation: Trifluralin is not classifiable as to its carcinogenicity to humans (Group 3).

Reproductive toxicity:
Assessment of reproduction toxicity:
Based on available data, the classification criteria are not met.

Developmental toxicity:
Assessment of teratogenicity:
Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure):
Assessment of STOT (single):
Based on available data, the classification criteria are not met.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure):
Assessment of repeated dose toxicity:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Assessment of repeated dose toxicity:
Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics	None known for the product.
Delayed and immediate effects as well as chronic effects from short and long-term exposure	Skin contact: irritation and possible sensitization (allergic reaction). Eye contact: irritation.

12. Ecological Information

Ecotoxicity
TRIFLUREX 480 EC is very toxic to aquatic life with long lasting effects.

The information below refers to Trifluralin

Species and Genus	Exposure (hours/days)	Result in fresh water
Crustacea (Daphnia magna)	48h	Acute EC_{50} 0.5 – 0.6 mg/L (ETOXNET[1])
Fish (Oncorhynchus mykiss)	96h	Acute LC_{50} 0.02 – 0.06 mg/L (ETOXNET[2])
Algae and aquatic plants (Pseudokirchneriella subcapitata)	96h	Acute EC_{50} 3.3mg/L (PubChem[3])

ETOXNET[1]**:** Mayer, F. L. and Ellersieck, M. R. Manual of Acute Toxicity: Interpretation and Data Base for 410 Chemicals and 66 Species of Freshwater Animals. Resource Publication 160. U.S. Department of Interior, Fish and Wildlife Service, Washington, DC, 1986.10-141.

ETOXNET: Johnson, W. W. and Finley, M. T. Handbook of Acute Toxicity of Chemicals to Fish and Aquatic Invertebrates, Resource Publications 137. U.S. Department of the Interior, Fish and Wildlife Service, Washington, DC, 1980.10-38.

PubChem[3]**:** Ordog V, Kuivasniemi K; Int Rev Hydrobiol 74 (2): 221 – 6 (1989) as cited in the ECOTOX Database. Available from, as of Februaty 19, 2012: *https://cfpub.epa.gov/ecotox/*.

Toxicity to Other Species
Trifluralin is practically non-toxic to birds and bees. At exposure levels above application rates of 100 mg/kg, Trifluralin has been shown to be toxic to earthworms. However, application rates that result in soil residues of approximately 1 ppm Trifluralin had no adverse effects on earthworms.

Other Environmental and Adverse Effects:
Environmental effect Environmental Description

	Effect Applicable to Ingredient	
Persistence and degradability:	Trifluralin	Not readily biodegradable. Reported half-lives of Trifluralin in the soil vary from 45 to 60 days to 6 to 8 months. After 6 months to 1 year, 80 to 90% of its activity will be gone. It is subject to degradation by soil microorganisms.
Bioaccumulative potential:	Trifluralin	With BCF values in the range 1580-8870. Trifluralin is considered to be highly bio-accumulative. Bioaccumulation of this chemical may occur along the food chain, for example in fish. The substance may cause long-term effects in the aquatic environment.
Mobility in soil & water:	Trifluralin	If released to soil, Trifluralin is expected to have moderate to no mobility based upon K_{oc} values of 397 to 27 900. If released into water, Trifluralin is expected to adsorb to suspended solids and sediment based upon the K_{oc} values. Volatilization of Trifluralin from moist soil surfaces may be an important fate process.
Other adverse effects:	Trifluralin	None known.

13. Disposal Considerations

Waste handling and disposal	Avoid and minimize the generation of waste. Dispose product related waste in accordance with all local regulations and prevent the contamination of water, food, or feed by storage or disposal of the waste. Do not use empty containers for any other purpose. The product or empty containers must not be disposed of as part of general waste. Special help is available for the disposal of Agricultural Chemicals. The product label will supply general advice regarding disposal of small quantities, and how to cleanse containers.
General container handling	Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Empty containers and offer for recycling, if an available option. Recondition if appropriate, or puncture and dispose of in a hazardous waste landfill, or by other procedures approved by the local authorities. Contaminated packaging: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the product.
Additional special precautions	The product and its container must always be disposed of in a safe manner. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

14. Transport Information

	Land Transport (ADR/RID)	Inland Waterways (AND/ADNR)	See Transport (IMDG)	Air Transport (ICAO-TI/IATA-DGR)
UN Number	1993	1993	1993	1993
UN Proper Shipping Name	Flammable liquid, N.O.S. (Xylene)	Flammable liquid, N.O.S. (Xylene)	Flammable liquid, N.O.S. (Xylene)	Flammable liquid, N.O.S. (Xylene)
Transport Hazard Class	3	3	3	3
Transport Hazard Class Pictogram				
Transport Subsidary Class				
Packaging Group	III	III	III	III
Environmental Hazard	Yes	Yes	Yes	Yes
Special Precautions for User	-	-	Marine pollutant	-

15. Regulatory Information

Safety, health and environmental regulations specific for the product in question

Symbol

Xn, N: Harmful and Dangerous for the environment.

R- Phrase Number	R Phrase
R10	Flammable
R40	Limited evidence of a carcinogenic effect.
R36/38	Irritating to eyes and skin.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

No known specific country national and/or local regulations applicable to the product (including its ingredients). A summary of country specific general laws/regulations are supplied below.

Country Specific Registration Requirements

COUNTRY	LEGAL REFERENCE	ASPECTS COVERED

South Africa	Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947)	Registration to manufacture or sell an agricultural remedy.

Country Specific Pesticide Handling and Storage Safety

COUNTRY	LEGAL REFERENCE	ASPECTS COVERED
South Africa	SANS10206: 2020.	The Handling, Storage and Disposal of Pesticides.

Specific Safety Data Sheet and Occupational Exposure Limit Requirements

COUNTRY	LEGAL REFERENCE	ASPECTS COVERED
South Africa	Regulations for Hazardous Chemical Agents – 2021 – SA Occupational Health and Safety Act.	Handling, labelling and Safety Data Sheets for hazardous and GHS classified substances and mixtures. Occupational Exposure Limits.
	SANS11014:2010.	Safety Data Sheet for Chemical Products – Content and Order of Sections.

Country Specific control of handling of poisonous/hazardous and non-poisonous/non-hazardous substances/chemicals in industry and the workplace

COUNTRY	LEGAL REFERENCE	ASPECTS COVERED
South Africa	**Hazardous Substances Act,** 1973 (Act No.15 of 1973).	Requirements on the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of **hazardous substances.**
	Occupational Health and Safety Act No. 85 of 1993.	Occupational Health and Safety Standards for employers and users working with and around hazardous chemical substances.

16. Other Information

Key to Abbreviations

AND	European Provisions concerning the International Carraige od Dangerous Goods by inland Waterways
ADR	The European Agreement concerning the International Carraige of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS Number	Chemical Abstracts Service Number
COD	Chemical Oxygen Demand
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
IMDG	International Maritime Dangerous Goods
Log_{Pow}	Logarithm of the octanol/water partition coefficient
LD_{50}	Lethal Dose 50
LC_{50}	Lethal Concentration 50
RID	The Regulations concerning the International Carraige of Dangerous Goods by Rail

SDS	Safety Data Sheet
STOT	SpecificTarget Organ Toxicity
TWA	Time Weighted Average
UN	United Nations

Document Control

Date of preparation of the SDS	25 June 2014
Revision date	18 March 2022
Revision Note	Changes made to the last version are labelled with the sign ***. NOTE: This revision incorporates the GHS requirements for TRIFLUREX 480 EC and therefore the total content of the SDS has been revised.

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Classification of the Mixture - Classification Procedure

H Statement Number	H Statement	Classification Basis: Test Data/Calculation Method
H226	Flammable liquid and vapour.	Flash Point of product.
H315	Causes skin irritation.	Xylene and other ingredients.
H317	May cause allergic skin reaction.	Active ingredient concentration.
H319	Causes serious eye irritation.	Calculated for ingredients.
H351	Suspected of causing cancer.	Active ingredient animal studies data.
H400	Very toxic to aquatic life.	Data for technical product.
H410	Very toxic to aquatic life with long lasting effects.	Data for technical product.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet