

# **SAFETY DATA SHEET**

## DOW AGROSCIENCES SOUTHERN AFRICA PTY LTD

Product name: GARLON™ 480 EC Issue Date: 05.10.2017
Print Date: 29.04.2020

DOW AGROSCIENCES SOUTHERN AFRICA PTY LTD encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

# 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: GARLON™ 480 EC

Recommended use of the chemical and restrictions on use

Identified uses: Plant Protection Product

#### **COMPANY IDENTIFICATION**

DOW AGROSCIENCES SOUTHERN AFRICA PTY LTD GROUND FLOOR MAGWA BUILDING MAXWELL OFFICE PARK MAGWA CRESCENT MIDRAND 1686 SOUTH AFRICA

**Customer Information Number:** 

SDS@corteva.com

## **EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** +32 3 575 55 **55 Local Emergency Contact:** +27 82 895 0621

### 2. HAZARDS IDENTIFICATION

# Classification of the substance or mixture

Acute toxicity - Category 4 - Oral - H302
Skin sensitisation - Category 1 - H317
Aspiration hazard - Category 1 - H304
Specific target organ toxicity - repeated exposure - Category 2 - H373
Acute aquatic toxicity - Category 1 - H400
Chronic aquatic toxicity - Category 1 - H410
For the full text of the H-Statements mentioned in this Section, see Section 16.

# Label elements

## **Hazard pictograms**







## Signal word: DANGER

### **Hazard statements**

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H304 May be fatal if swallowed and enters airways.

H373 May cause damage to organs (Kidney) through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

### **Precautionary statements**

P260 Do not breathe mist/vapours/spray.

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

P302 + P352 IF ON SKIN: Wash with plenty of water.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT

+ P331 induce vomiting.

P314 Get medical attention if you feel unwell.

P501 Dispose of contents/container in accordance with applicable regulations.

# Supplemental information

EUH401 To avoid risks to human health and the environment, comply with the instructions for

use.

**Contains** Triclopyr-2-butoxyethyl ester; Kerosene

## Other hazards

No data available

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

CASRN / EC-No. / Index-No.	Concentration	Component	Classification
CASRN 64700-56-7 EC-No. 265-024-8 Index-No.	61,2%	Triclopyr-2-butoxyethyl ester	Acute Tox 4 - H302 Skin Sens 1 - H317 STOT RE - 2 - H373 Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410
CASRN 8008-20-6 EC-No.	> 30,0 - < 40,0 %	Kerosene	Skin Irrit 2 - H315 STOT SE - 3 - H336 Asp. Tox 1 - H304

232-366-4 <b>Index-No.</b> 649-404-00-4			Aquatic Chronic - 2 - H411
CASRN 90194-53-9 EC-No. 290-665-5 Index-No.	< 5,0 %	Benzenesulfonic Acid, Mono- C10-13-branched Alkyl Derivs., compds. with N,N-Dimethyl-1,3- propanediamine	Skin Irrit 2 - H315 Eye Dam 1 - H318 Aquatic Chronic - 2 - H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

#### Description of first aid measures

**General advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

**Skin contact:** Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.

**Eye contact:** Hold eyes 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 eyes. Call a poison control center or doctor for treatment advice.

**Ingestion:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

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

**Notes to physician:** Skin contact may aggravate preexisting dermatitis. The decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

## 5. FIREFIGHTING MEASURES

**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media: No data available

# Special hazards arising from the substance or mixture

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Phosgene. Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

# Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

# **6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. No smoking in area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Keep out of reach of children. Keep away from heat, sparks and flame. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Avoid breathing vapor or mist. Use with adequate ventilation. Wash thoroughly after handling. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

**Conditions for safe storage:** Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

## Storage stability

To maintain product quality, recommended storage temperature is > -10 °C

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Control parameters**

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Triclopyr-2-butoxyethyl ester	Dow IHG	TWA	2 mg/m3
	Dow IHG	TWA	SKIN, DSEN, BEI
Kerosene	ACGIH	TWA	200 mg/m3, total
			hydrocarbon vapor
	ACGIH	TWA	SKIN
	Dow IHG	TWA	100 mg/m3 , total hydrocarbon vapor
	Dow IHG	TWA	SKIN

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

## **Exposure controls**

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

## Individual protection measures

**Eye/face protection:** Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent.

**Skin protection** 

Issue Date: 05.10.2017

**Hand protection:** Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Chlorinated polyethylene. Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** 

Physical state Liquid.

Color Yellow

Odor Gasoline-like

Odor Threshold No test data available

pH 6,4 1% pH Electrode 5,3 at 100 g/L pH Electrode

Melting point/rangeNo test data availableFreezing pointNo test data availableBoiling point (760 mmHg)No test data available

Flash point closed cup 65,5 °C EC Method A9

Evaporation Rate (Butyl Acetate No test data available

= 1)

Flammability (solid, gas) No

Lower explosion limitNo test data availableUpper explosion limitNo test data availableVapor PressureNo test data availableRelative Vapor Density (air = 1)No test data available

Relative Density (water = 1) 1,079 at 23 °C /4 °C OECD 109

Water solubility emulsifiable

Issue Date: 05.10.2017

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature 238 °C

Decomposition temperatureNo test data availableDynamic Viscosity16,4 mPa.s at 20 °C

Kinematic Viscosity 11,2 cSt at 20 °C 7,13 mm2/s at 40 °C

Explosive properties No EEC A14

Oxidizing properties No significant increase (>5C) in temperature.

Molecular weightNo data availableSurface tension27,0 mN/m at25 °C

NOTE: The physical data presented above are typical values and should not be construed as a specification.

# 10. STABILITY AND REACTIVITY

**Reactivity:** No dangerous reaction known under conditions of normal use.

**Chemical stability:** Thermally stable at typical use temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

**Conditions to avoid:** Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials: Avoid contact with: Acids. Bases. Oxidizers.

**Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Hydrogen chloride. Nitrogen oxides. Phosgene. Toxic gases are released during decomposition.

## 11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

### **Acute toxicity**

## **Acute oral toxicity**

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product:

LD50, Rat, female, 1 338 mg/kg

## Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

#### As product:

LD50, Rabbit, > 2 000 mg/kg No deaths occurred at this concentration.

#### **Acute inhalation toxicity**

No adverse effects are anticipated from single exposure to mist. Mist may cause irritation of upper respiratory tract (nose and throat).

#### As product:

LC50, Rat, 4 Hour, dust/mist, > 5,2 mg/l No deaths occurred at this concentration.

## Skin corrosion/irritation

Brief contact may cause slight skin irritation with local redness.

May cause drying and flaking of the skin.

Repeated contact may cause severe skin irritation with local redness and discomfort.

## Serious eye damage/eye irritation

May cause pain disproportionate to the level of irritation to eye tissues.

May cause slight eye irritation.

Corneal injury is unlikely.

#### Sensitization

Has caused allergic skin reactions when tested in guinea pigs.

With the dilute mix, no allergic skin reaction is expected.

For respiratory sensitization:

No relevant data found.

#### Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

#### Specific Target Organ Systemic Toxicity (Repeated Exposure)

For the active ingredient(s):

In animals, effects have been reported on the following organs:

Kidney.

Liver.

For the solvent(s):

In animals, effects have been reported on the following organs after exposure to aerosols:

Central nervous system.

Respiratory tract.

#### Carcinogenicity

In a lifetime animal dermal carcinogenicity study, an increased incidence of skin tumors was observed when kerosene was applied at doses that also produced skin irritation. This response was similar to that produced in skin by other types of chronic chemical/physical irritation. No increase in tumors was observed when non-irritating dilutions of kerosene were applied at equivalent doses, indicating that kerosene is unlikely to cause skin cancer in the absence of long-term continued skin irritation.

Active ingredient did not cause cancer in laboratory animals.

### **Teratogenicity**

For the active ingredient(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

Product name: GARLON™ 480 EC

Issue Date: 05.10.2017

For the solvent(s): Did not cause birth defects or any other fetal effects in laboratory animals.

## Reproductive toxicity

For similar active ingredient(s). Triclopyr. In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. For the solvent(s): Limited data in laboratory animals suggest that the material does not affect reproduction.

#### Mutagenicity

For the active ingredient(s): For the solvent(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

## **Aspiration Hazard**

May be fatal if swallowed and enters airways.

## 12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

#### **Toxicity**

# Acute toxicity to fish

Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species).

LC50, Oncorhynchus mykiss (rainbow trout), flow-through test, 96 Hour, 0,984 mg/l

LC50, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, 0,44 mg/l

## Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), flow-through test, 48 Hour, 0,35 mg/l

#### Acute toxicity to algae/aguatic plants

EbC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Biomass, 10,6 mg/l

ErC50, Pseudokirchneriella subcapitata (microalgae), static test, 72 Hour, Growth rate inhibition, 36,7 mg/l

### **Toxicity to Above Ground Organisms**

Material is slightly toxic to birds on an acute basis (LD50 between 501 and 2000 mg/kg).

oral LD50, Colinus virginianus (Bobwhite quail), 1350mg/kg bodyweight.

oral LD50, Apis mellifera (bees), 48 Hour, > 230µg/bee

contact LD50, Apis mellifera (bees), 48 Hour, > 230µg/bee

# Toxicity to soil-dwelling organisms

LC50, Eisenia fetida (earthworms), 14 d, 2 552 mg/kg

## Persistence and degradability

Product name: GARLON™ 480 EC

**Biodegradability:** Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

### Bioaccumulative potential

#### Triclopyr-2-butoxyethyl ester

**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 4,62

Bioconcentration factor (BCF): 110 Fish

#### **Kerosene**

**Bioaccumulation:** Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

Partition coefficient: n-octanol/water(log Pow): 6,23

Bioconcentration factor (BCF): 207,7

# Benzenesulfonic Acid. Mono-C10-13-branched Alkyl Derivs.. compds. with N.N-Dimethyl-1.3-propanediamine

Bioaccumulation: No relevant data found.

### Mobility in soil

### Triclopyr-2-butoxyethyl ester

Calculation of meaningful sorption data was not possible due to very rapid degradation in the soil.

For the degradation product:

Triclopyr.

Potential for mobility in soil is very high (Koc between 0 and 50).

#### **Kerosene**

Potential for mobility in soil is slight (Koc between 2000 and 5000).

Partition coefficient (Koc): 4818

# Benzenesulfonic Acid. Mono-C10-13-branched Alkyl Derivs.. compds. with N.N-Dimethyl-1.3-propanediamine

No relevant data found.

## Results of PBT and vPvB assessment

#### Triclopyr-2-butoxyethyl ester

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

#### **Kerosene**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

# Benzenesulfonic Acid. Mono-C10-13-branched Alkyl Derivs.. compds. with N.N-Dimethyl-1.3-propanediamine

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

## Other adverse effects

Issue Date: 05.10.2017

#### Triclopyr-2-butoxyethyl ester

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

#### <u>Kerosene</u>

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

# Benzenesulfonic Acid. Mono-C10-13-branched Alkyl Derivs.. compds. with N.N-Dimethyl-1.3-propanediamine

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

## 13. DISPOSAL CONSIDERATIONS

**Disposal methods:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

## 14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(Triclopyr)

UN number UN 3082

Class 9 Packing group III

Environmental hazards Triclopyr

Classification for SEA transport (IMO-IMDG):

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(Triclopyr)

UN number UN 3082

Class 9
Packing group III
Marine pollutant Triclopyr

Transport in bulk Consult IMO regulations before transporting ocean bulk

according to Annex I or II of MARPOL 73/78 and the

**IBC or IGC Code** 

Classification for AIR transport (IATA/ICAO):

**Proper shipping name** Environmentally hazardous substance, liquid, n.o.s.(Triclopyr)

UN number UN 3082

Class 9

# Packing group III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

### 15. REGULATORY INFORMATION

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Listed in Regulation: ENVIRONMENTAL HAZARDS

Number in Regulation: E1

100 t 200 t

Listed in Regulation: Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)

Number in Regulation: 34

2 500 t 25 000 t

 $\square$ 2 $\square$ 2

# 16. OTHER INFORMATION

#### Full text of H-Statements referred to under sections 2 and 3.

Harmful if cwallowed

⊓3UZ	namiulii swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

#### Revision

Identification Number: 101203594 / A290 / Issue Date: 05.10.2017 / Version: 1.4

DAS Code: XRM-4714

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
Dow IHG	Dow Industrial Hygiene Guideline
SKIN	Absorbed via skin
SKIN, DSEN, BEI	Absorbed via Skin, Skin Sensitizer, Biological Exposure Indice
TWA	Time Weighted Average (TWA):

#### **Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW AGROSCIENCES SOUTHERN AFRICA PTY LTD urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.