

MATERIAL SAFETY DATA SHEET**CONFRONT SUPER 132 SL HERBICIDE**

1. PRODUCT AND COMPANY IDENTIFICATION

Supplier DOW AGROSCIENCES (PTY) LTD
Private Bag X160,
Bryanston.
2021

SPILLAGES:

Emergency telephone: (+27) 032 5330716 or 082 887 8079

Fax: (+27) 032 5336134

POISONINGS:

National Poison Centre 021-9386084 (office hours).
021-9316129 (after hours).

Product Name: CONFRONT SUPER 132 SL HERBICIDE

LV70: **Issue Date:** 12/09/2008

Ref: GF-1883

Revised: February 2010

2. COMPOSITION/INFORMATION ON INGREDIENTS**Components contributing to hazard:**

		CAS	EINECS
Triclopyr TEA(triethylamine salt)	16.22%	064700-56-7	265-024-8
Aminopyralid TIPA	2.22 %	50114-71-9	
Triisopropanolammonium salt)			
EDTA	0.80 %	60-00-4	
Inert Ingredients	80.76 %		

UN No.: Not regulated for any mode of transport.

3. HAZARDS IDENTIFICATION**Eye Contact:**

May cause slight eye irritation. May cause slight temporary corneal injury.

Skin Contact:

Brief contact may cause skin irritation with local redness.

Skin Absorption:

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

Inhalation:

No adverse effects are anticipated from single exposure to vapor. No adverse effects are anticipated from single exposure to mist. Prolonged exposure is not expected to cause adverse effects.

Ingestion:

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.

Effects of Repeated Exposure:

In animals, effects have been reported on the following organs: For the active ingredient(s): Kidney. or similar active ingredient(s). Liver. Gastro-intestinal tract.

MATERIAL SAFETY DATA SHEET

CONFONT SUPER 132 SL HERBICIDE

Birth Defects/Developmental Effects:

EDTA and its sodium salts have been reported to cause birth defects in laboratory animals only at exaggerated doses that were toxic to the mother. These effects are likely associated with zinc deficiency due to chelation.

Reproductive Effects: 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.

4. FIRST-AID MEASURES**Eye Contact:**

Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact:

Wash skin with plenty of water.

Inhalation:

Move person to fresh air; if effects occur, consult a physician.

Ingestion:

If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Note to Physician:

No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Symptoms of poisoning are non specific.

5. FIRE-FIGHTING MEASURES**Extinguishing Media:**

To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. General purpose synthetic foams (including AFFF type) or protein foams are preferred if available. Alcohol resistant foams (ATC type) may function.

Fire Fighting Procedures:

Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. 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 MSDS.

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.

Unusual Fire and Explosion Hazards:

This material will not burn until the water has evaporated. Residue can burn. May produce flash fire. If exposed to fire from another source and water is

MATERIAL SAFETY DATA SHEET

CONFRONT SUPER 132 SL HERBICIDE

evaporated, exposure to high temperatures may cause toxic fumes.

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: Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled:

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 the emergency contact number for clean-up assistance.

Personal Precautions:

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.

7. HANDLING AND STORAGE

Handling

General Handling:

Keep out of reach of children. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling.

Other Precautions:

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.

Storage:

Product should be stored in compliance with local regulations. Store original container in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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 Guidelines

Triclopyr Triethylamine salt: Dow AgroSciences IHG is 2 mg/m³ (D-SEN).

A D-SEN notation following the exposure guideline refers to the potential to produce dermal sensitization, as confirmed by human or animal data.

MATERIAL SAFETY DATA SHEETCONFRONT SUPER 132 SL HERBICIDE

Engineering Controls**Ventilation:**

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.

Personal Protection**Eye/Face Protection:**

Use safety glasses.

Skin Protection:

When prolonged or frequently repeated contact could occur, 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. For brief contact, no precautions other than clean body-covering clothing and impervious gloves should be needed.

Hand protection:

Use gloves chemically resistant to this material.

Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl").

Avoid gloves made of: Polyvinyl alcohol ("PVA").

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.

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.

For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

Ingestion:

Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Liquid
Colour	: Red to brown
Odour	: Mild

MATERIAL SAFETY DATA SHEET**CONFRONT SUPER 132 SL HERBICIDE**

Rel. density (water=1) : 1.0528 g/ml@20 °C
Water solubility : Soluble
Flash point : >100.0 °C.
pH : 7.25 @ 23.4 °C

10. STABILITY AND REACTIVITY**Chemical Stability:**

Is stable under normal storage conditions.

Conditions to Avoid:

Avoid extremes of temperature. Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems

Materials to Avoid:

Avoid contact with 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. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION**Acute Toxicity**

Oral LD50, Rat, female: 3,752 mg/kg

Skin absorbtion, Rat, male and female: > 5,000 mg/kg

Inhalation LC50, 4 h, Aerosol, Rat: male and female > 5.34 mg/l

Skin Sensitization: Did not cause allergic skin reactions when tested in mice.

Skin irritation: Brief contact may cause skin irritation with local redness.

Eye irritation: May cause slight eye irritation. May cause slight temporary corneal injury.

Repeated Dose Toxicity

In animals, effects have been reported on the following organs: For the active ingredient(s): Kidney.

For similar active ingredient(s). Liver. Gastrointestinal tract.

Chronic Toxicity and Carcinogenicity:

For similar active ingredient(s). Triclopyr. Aminopyralid. Did not cause cancer in laboratory animals.

The trisodium salt of EDTA did not cause cancer in laboratory animals.

Developmental Toxicity:

Active ingredient did not cause birth defects in laboratory animals. For similar active ingredient(s). Did not cause birth defects in laboratory animals. EDTA and its sodium salts have been reported to cause birth defects in laboratory animals only at exaggerated doses that were toxic to the mother. These effects are likely associated with zinc deficiency due to chelation.

Reproductive Toxicity:

For similar active ingredient(s). Triclopyr. In laboratory animal studies, effects on reproduction have been seen only at doses that produced

MATERIAL SAFETY DATA SHEET**CONFRONT SUPER 132 SL HERBICIDE**

significant toxicity to the parent animals. For similar active ingredient(s). Aminopyralid: In animal studies, did not interfere with reproduction.

For the minor component(s): Limited data on component(s) tested did not indicate an effect on reproduction in laboratory animals.

Genetic Toxicology:

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

For similar active ingredient(s). In vitro genetic toxicity studies were predominantly negative. Genetic toxicity studies in animals were negative for component(s) tested. Most data indicate that EDTA and its salts are not mutagenic. Minimal effects reported are likely due to trace metal deficiencies resulting from chelating by EDTA.

12. ECOLOGICAL INFORMATION**ENVIRONMENTAL FATE****Data for Component: Triclopyr Triethylamine Salt****Movement and Partitioning**

Bio-concentration potential is low (BCF less than 100 or log Pow less than 3). Based largely or completely on information for similar material(s). Potential for mobility in soil is medium (Koc between 150 and 500).

Henry's Law Constant (H): 3.724E-14 atm*m3/mole; 25 °C Estimated

Partition coefficient, n-octanol/water (log Pow): 1.50 Estimated

Partition coefficient, soil organic carbon/water (Koc): 4,523 Estimated

Bioconcentration Factor (BCF): 1; invertebrate; Measured.

Persistence and Degradability

Chemical degradation (hydrolysis) is expected in the environment. Based largely or completely on information for similar material(s). Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%).

Chemical degradation (hydrolysis) is expected in the environment. Based largely or completely on information for similar material(s). 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.

Data for Component: Aminopyralid Triisopropanolamine Salt**Movement and Partitioning**

For similar active ingredient(s). Aminopyralid. Bio-concentration potential is low (BCF less than 100 or log Pow less than 3). Potential for mobility in soil is very high (Koc between 0 and 50).

Persistence and Degradability

Material is not readily biodegradable according to OECD/EC guidelines.

Data for Component: Ethylenediamine tetraacetic acid**Movement and Partitioning**

Bio-concentration potential is low (BCF less than 100 or log Pow less than 3).

MATERIAL SAFETY DATA SHEET**CONFRONT SUPER 132 SL HERBICIDE**

Potential for mobility in soil is high (Koc between 50 and 150).
Henry's Law Constant (H): 7.7E-16 atm*m3/mole. Estimated
Partition coefficient, n-octanol/water (log Pow): -5.005. Estimated
Partition coefficient, soil organic carbon/water (Koc): 98
Bio-concentration Factor (BCF): 1.1; fish; Measured.

Persistence and Degradability

Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability).

ECOTOXICITY

Material is practically non-toxic to fish on an acute basis (LC50 > 100 mg/L). Material is practically non-toxic to aquatic invertebrates on an acute basis (LC50/EC50 > 100 mg/L). Material is slightly toxic to birds on an acute basis (LD50 between 501 and 2000 mg/kg).

Fish Acute and Prolonged Toxicity

LC50, rainbow trout (*Oncorhynchus mykiss*), flow-through, 96 h: > 800 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, water flea *Daphnia magna*, flow-through, 48 h, immobilization: > 800 mg/l

Aquatic Plant Toxicity

EC50, diatom *Navicula* sp., static, biomass growth inhibition, 96 h: 89.8 mg/l

Toxicity to Non-mammalian Terrestrial Species

Oral LD50, bobwhite (*Colinus virginianus*): 1,839 mg/kg

Contact LD50, Honey bee (*Apis mellifera*): > 191.6 micrograms/bee

Oral LD50, Honey bee (*Apis mellifera*): 133.0 micrograms/bee

Toxicity to Soil Dwelling Organisms

LC50, Earthworm *Eisenia foetida*, adult, 14 d: > 0.333 ml/kg

13. DISPOSAL CONSIDERATIONS

Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

14. TRANSPORT INFORMATION

UN no.: Not Regulated.

15. REGULATORY INFORMATION

Hazard Symbol : Xn - Harmful
Xi- Irritating

Risk Phrases : Harmful if swallowed. (R22)
Irritating to eyes and skin (R36/38)

Safety Phrases : Keep out of reach of children. (S2)
Keep away from food, drink and animal feeding stuffs. (S13)
When using do not eat, drink or smoke. (S20/21)
Avoid contact with skin. (S24)
Wear suitable protective clothing, gloves and

MATERIAL SAFETY DATA SHEET

CONFRONT SUPER 132 SL HERBICIDE

eye/face protection. (S36/37/39)

In case of accident or if you feel unwell, seek medical advice immediately (Show the label where possible). (S45)

National legislation: In accordance with the South African National Road Traffic Act, 1996 (Act 93 of 1996), the Fire Brigade Act, 1987 (Act 99 of 1987) and the Occupational Health and Safety Act, 1993 (Act. No. 85 of 1993)

16. OTHER INFORMATION

REFERENCES

- Applicable own physical and chemical, toxicity and ecotoxicity research studies.
- ADR 2009.
- IMDG Code, 2008 Edition.
- IATA Dangerous goods regulations, Effective 1 January 2009, 50th Edition.

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and is presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

END OF MSDS.