

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **NUVOGON 480 EC HERBICIDE**

Chemical name: Triclopyr Butoxy Ethyl Ester 665g/l (a.i.)

Formulation type: EC

Supplier: Future Farm & Forest Services & Supplies (Pty) Ltd

P O BOX 98165

SLOANE PARK

2152

Tel: +27 11 463 5842

Poisonings: Griffon Poison Information Centre - 082 446 8946

Tygerberg Poison Information Centre – 021 931 6129

UOFS Pharmacology/Toxicology information Centre - 0824910160

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS CONTRIBUTING TO HAZARD:

Triclopyr-2- Butoxy ethyl ester (665 g/l)	:480g/L
Solvent plus inert Ingredients	: balance
NIOSH/RTECS NO	
UN no	: 3082

3. HAZARDS IDENTIFICATION

Harmful if swallowed.
Irritating to skin.
May cause sensitization by skin contact
Harmful to aquatic organisms

4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Ingestion

Do NOT induce vomiting. Call a physician and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by an attending physician.

Eye contact

Irrigate immediately with water for at least 5 minutes

Skin contact

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing before reuse.

Inhalation

Remove patient to fresh air, consult a physician

Note to physician

No specific antidote. If lavage is performed, suggest endotracheal and /or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.

Supportive care. Treatment based on judgment of physician in response to symptoms of patient.

5. FIRE FIGHTING MEASURES

Extinguishing media

Water or fog or fine spray. Carbon dioxide. Dry chemical. Foam.

Hazardous combustion products

Nitrogen oxides. Hydrogen chloride. Phosgene. Dependent on the intensity of the fire.

Protection of firefighters

Wear protective clothing and use self-contained breathing apparatus.

Additional information

Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear appropriate safety clothing and eye/face protection (see section 8)

Environmental precautions

Do not wash into sewers or into any body of water, advise water authority if spillage has entered water course or drainage system.

Methods of cleaning up

Soak up all with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is require, telephone the emergency contact number.

7. HANDLING AND STORAGE

HANDLING

Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work. Avoid eye and skin contact.

STORAGE

Product should be stored in compliance with local regulations. Store 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 fertilizers. **KEEP OUT OF REACH OF CHILDREN.**

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective limit value. Ensure that eyewash stations and safety showers are proximal to the work station location.

HYGIENE MEASURES

Wash hands after handling compounds and before eating, smoking, using the lavatory and at the end of the day.

OCCUPATIONAL EXPOSURE LIMITS

Not available

PERSONAL PROTECTIVE EQUIPMENT

Respiratory system

Wear appropriate respirator when ventilation is inadequate.

Skin and body

Wear a lab coat

Hands

Wear protective gloves

Eyes

Wear splash goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	: Liquid
COLOR	: Yellowish-brown
ODOR	: Not available
MELTING POINT	: May start to solidify at -42°C (-43.6°F) based on data for Triclopyr butoxy ethyl ester.
DENSITY	: 0.93 g/cm ³ at 20°C (68°F)
VAPOUR DENSITY	: The highest known value is 12.3 (air = 1) (Triclopyr butoxy ethyl ester)
VAPOUR PRESSURE	: The highest known value is 0 kPa (at 20°C) (Triclopyr butoxy ethyl ester)
pH	: Not available
FLASH POINT	: CLOSED CUP: between 61°C (142°F) and 93.3°C (200°F)
AUTOIGNITION TEMPERATURE	: The lowest known value is 230°C (446°F) (solvent).

10. STABILITY AND REACTIVITY

Stability

The product is stable.

Materials to avoid

Reactive with oxidizing agents, acids, alkalis.

Hazard decomposition products

Carbon oxides (CO, CO₂) nitrogen oxides (NO, NO₂) halogenated compounds.

11. TOXICOLOGICAL INFORMATION

LOCAL AFFECTS

Skin Irritation: hazardous in the case of skin contact (irritant)

Eye irritation: hazardous in the case of eye contact (irritant)

Sensitization: hazardous in the case of skin contact (sensitizer)

Acute toxicity: acute oral toxicity (LD50): 1150mg/kg [Rat]. (Nuvogon butoxy ethyl ester)

Acute dermal toxicity (LD50): >2000mg/kg [Rat]. (Solvent).

Chronic toxicity: repeated or prolonged exposure is not known to aggravate medical condition.

12. ECOLOGICAL INFORMATION

ECOTOXCITY

Triclopyr butoxy ethyl ester

0.7mg/l, 96 hours [FISH]

VERY toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

ENVIROMENTAL HAZARDS

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Practically non-toxic to birds on an acute basis

Non-toxic to bees

13. DISPOSAL CONSIDERATIONS

METHODS OF DISPOSAL; WASTE OF RESIDUES;
CONTAMINATED PACKAGING

Waste must be disposed of in accordance with governmental and local environmental control regulations.

WASTE CLASSIFICATION

Not applicable

14. TRANSPORT INFORMATION

INTERNATIONAL TRANSPORT REGULATIONS

UN number : 3082

LAND – ROAD/RAILWAY

Proper shipping name : environmentally hazardous substance. Liquid, n.o.s.

ADR/RID Class : class 9: Miscellaneous substances.

Packaging Group : III

SEA

Proper shipping name : environmentally hazardous substance. Liquid, n.o.s.
(Triclopyr butoxy ethyl ester)
IMDG Class : class 9: miscellaneous substances. Marine pollutant
IMDG page number : 9028
Packaging group : III
IMDG label :
Marine pollutant : IMDG class: marine pollutant. (Pollutant)

AIR

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
UN/ID Number : 3082
IATA-DGR Class : class 9: miscellaneous substances

INLAND WATERWAYS

Proper shipping name : environmentally hazardous substance, liquid, n.o.s.
ADNR Classification : Class 9: miscellaneous substances.
UN/ID (EUROPE) ADNR : 3082
Packaging group : III

15. REGULATORY INFORMATION

EU REGULATIONS

Hazard symbol(s) : Xn - Harmful
Classification : Harmful, dangerous for the environment
Risk Phrases : R36/38 – Irritating to the eyes and skin.
R43-May cause sensitization by skin contact
R50/53- VERY toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
R65- harmful: may cause lung damage if swallowed.

Safety phrases : S2- KEEP OUT OF REACH OF ALL CHILDREN
S24- avoid contact with skin
S37- wear suitable gloves
S46-if swallowed seek medical advice immediately and show this container or label.
S56- dispose of this material and its container at hazardous or special waste collection point.
S 64- if swallowed, rinse mouth with water (only if patient is conscious).

Contains : - solvent
: - Triclopyr butoxy ethyl ester

Product use

: Classification and labeling have been performed according to EU directives 67/548/EEC, 88/379/EEC including amendments and the intended use.
Consumer applications

16. OTHER INFORMATION

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

Revised: Jan 2013