

# Safety Data Sheet

according to WHS Regulations

Printing date 15.01.2020

Revision: 15.01.2020

## 1 Identification

**Product Name:** RELYON BROMOXYNIL 400 HERBICIDE

**Other Means of Identification:** Mixture

**Recommended Use of the Chemical and Restriction on Use:** Agricultural herbicide

**Details of Manufacturer or Importer:**

Nutrien Ag Solutions Limited  
Level 5, Building A  
26 Talavera Road  
Macquarie Park NSW 2113

**Phone Number:** 02 9889 5400

**Emergency telephone number:** National Poison Information Centre: 13 11 26

## 2 Hazard(s) Identification

**Hazardous Nature:**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



flame

Flammable Liquids 3                      H226 Flammable liquid and vapour.



skull and crossbones

Acute Toxicity (Inhalation) 3    H331 Toxic if inhaled.



health hazard

Toxic To Reproduction 2            H361 Suspected of damaging fertility or the unborn child.

Aspiration Hazard 1                H304 May be fatal if swallowed and enters airways.



environment

Aquatic Chronic 1                    H410 Very toxic to aquatic life with long lasting effects.



Acute Toxicity (Oral) 4              H302 Harmful if swallowed.

Skin Sensitisation 1                H317 May cause an allergic skin reaction.

**Signal Word** Danger

**Hazard Statements**

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

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H331 Toxic if inhaled.  
 H317 May cause an allergic skin reaction.  
 H361 Suspected of damaging fertility or the unborn child.  
 H304 May be fatal if swallowed and enters airways.  
 H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
 P240 Ground/bond container and receiving equipment.  
 P241 Use explosion-proof electrical/ventilating/lighting equipment.  
 P242 Use only non-sparking tools.  
 P243 Take precautionary measures against static discharge.  
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P264 Wash hands thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P271 Use only outdoors or in a well-ventilated area.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
 P321 Specific treatment (see on this label).  
 P330 Rinse mouth.  
 P331 Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P370+P378 In case of fire: Use to extinguish: CO<sub>2</sub>, powder or water spray.  
 P391 Collect spillage.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P403+P235 Store in a well-ventilated place. Keep cool.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national regulations.

### 3 Composition and Information on Ingredients

**Chemical Characterization: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Hazardous Components:**

	Liquid hydrocarbon	37 - 41%
	 Aspiration Hazard 1, H304	
CAS: 1689-99-2	Bromoxynil octanoate (ISO)	40%
	 Acute Toxicity (Inhalation) 3, H331;  Toxic To Reproduction 2, H361;  Aquatic Chronic 1, H410;  Acute Toxicity (Oral) 4, H302; Skin Sensitisation 1, H317	

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### 4 First Aid Measures

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

**Skin Contact:**

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

**Eye Contact:**

In case of eye contact, rinse cautiously with water for several minutes. Seek medical attention if symptoms occur.

**Ingestion:**

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Symptoms Caused by Exposure:**

Inhalation: Toxic if inhaled. May cause mild respiratory irritation.

Skin Contact: May cause an allergic skin reaction.

Eye Contact: No adverse health effects expected.

Ingestion: Harmful if swallowed. May be fatal if swallowed and enters airways.

### 5 Fire Fighting Measures

**Suitable Extinguishing Media:**

Water fog, foam, dry chemical or carbon dioxide. Alcohol resistant foam is preferred but normal foam can be used.

**Specific Hazards Arising from the Chemical:**

Hazardous combustion products include oxides of carbon and nitrogen, other nitrogen compounds, hydrogen cyanide, bromine compounds, water and smoke.

Product is flammable. Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

**Special Protective Equipment and Precautions for Fire Fighters:**

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

### 6 Accidental Release Measures

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

**Environmental Precautions:**

In the event of a major spill, prevent spillage from entering drains or water courses.

**Methods and Materials for Containment and Cleaning Up:**

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

### 7 Handling and Storage

**Precautions for Safe Handling:**

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.

Take precautionary measures against static discharge. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or

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using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Contaminated work clothing must not be allowed out of the workplace. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

**Conditions for Safe Storage:**

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from heat, sparks, open flames, hot surfaces and direct sunlight. Keep away from oxidising agents.

### 8 Exposure Controls and Personal Protection

**Exposure Standards:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Engineering Controls:** Ensure adequate ventilation of the working area.

**Respiratory Protection:**

Respiratory protection is not required under normal use conditions. Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

**Skin Protection:**

PVC gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

**Eye and Face Protection:**

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

### 9 Physical and Chemical Properties

**Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Clear brown
<b>Odour:</b>	Characteristic
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	3.8 - 4.8 (1% in water)
<b>Melting point/freezing point:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	No information available
<b>Flash Point:</b>	47.7 °C
<b>Flammability:</b>	Flammable.
<b>Auto-ignition Temperature:</b>	366 °C
<b>Decomposition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Lower:</b>	No information available
<b>Upper:</b>	No information available
<b>Vapour Pressure:</b>	No information available
<b>Relative Density:</b>	1.140
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available

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**Solubility in Water:** Emulsifiable.  
**Partition Coefficient (n-octanol/water):** No information available  
**Viscosity at 40 °C:** 6.95 mm<sup>2</sup>/s

## 10 Stability and Reactivity

**Possibility of Hazardous Reactions:** Hazardous polymerisation will not occur.

**Chemical Stability:** Stable at ambient temperature and under normal conditions of use.

**Conditions to Avoid:** Heat, sparks, open flames, hot surfaces and direct sunlight.

**Incompatible Materials:** Oxidising agents.

**Hazardous Decomposition Products:**

Oxides of carbon and nitrogen, other nitrogen compounds, hydrogen cyanide, bromine compounds, water and smoke.

## 11 Toxicological Information

**Toxicity:**

**LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:**

**CAS: 1689-99-2 Bromoxynil octanoate (ISO)**

Oral	LD <sub>50</sub>	63 mg/kg (guinea pig)
		190 mg/kg (rat)
		260 mg/kg (rabbit)
Dermal	LD <sub>50</sub>	>2,000 mg/kg (rabbit)

**Acute Health Effects**

**Inhalation:** Toxic if inhaled. May cause mild respiratory irritation.

**Skin:** May cause an allergic skin reaction.

**Eye:** No adverse health effects expected.

**Ingestion:** Harmful if swallowed. May be fatal if swallowed and enters airways.

**Skin Corrosion / Irritation:** Based on classification principles, the classification criteria are not met.

**Serious Eye Damage / Irritation:** Based on classification principles, the classification criteria are not met.

**Respiratory or Skin Sensitisation:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.

**Carcinogenicity:** This product does NOT contain any IARC listed chemicals.

**Reproductive Toxicity:** Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

Based on classification principles, the classification criteria are not met.

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Chronic Health Effects:** No information available

**Existing Conditions Aggravated by Exposure:** No information available

**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for bromoxynil for a human is 0.003 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.3 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

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(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2020).

### 12 Ecological Information

**Ecotoxicity:****Aquatic toxicity:**

Very Toxic to aquatic life with long lasting effects.

**CAS: 1689-99-2 Bromoxynil octanoate (ISO)**

LC <sub>50</sub>	0.46 mg/l (goldfish)
	0.05 mg/l (rainbow trout)

**Persistence and Degradability:** This product is biodegradable.**Bioaccumulative Potential:** Bioaccumulation is not expected to occur.**Mobility in Soil:** No further relevant information available.**Other adverse effects:** No further relevant information available.

### 13 Disposal Considerations

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

### 14 Transport Information

<b>UN Number</b>	UN1993
<b>ADG, IMDG, IATA</b>	
<b>Proper Shipping Name</b>	
<b>ADG</b>	FLAMMABLE LIQUID, N.O.S. (Bromoxynil octanoate (ISO)), ENVIRONMENTALLY HAZARDOUS
<b>IMDG</b>	FLAMMABLE LIQUID, N.O.S. (Bromoxynil octanoate (ISO)), MARINE POLLUTANT
<b>IATA</b>	FLAMMABLE LIQUID, N.O.S. (Bromoxynil octanoate (ISO))
<b>Dangerous Goods Class</b>	
<b>ADG Class:</b>	3 Flammable liquids.
<b>Packing Group:</b>	
<b>ADG, IMDG, IATA</b>	III
<b>Marine pollutant:</b>	Yes Symbol (fish and tree)
<b>EMS Number:</b>	F-E,S-D
<b>Hazchem Code:</b>	•3Y
<b>Special Provisions:</b>	223, 274
<b>Limited Quantities:</b>	5L
<b>Packagings &amp; IBCs - Packing Instruction:</b>	P001, IBC03, LP01
<b>Portable Tanks &amp; Bulk Containers - Instructions:</b>	T4

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**Portable Tanks & Bulk Containers - Special Provisions:**

TP1, TP29

## 15 Regulatory Information

**Australian Inventory of Chemical Substances:**

CAS: 1689-99-2 Bromoxynil octanoate (ISO)

**Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:**  
Poisons Schedule: 6

## 16 Other Information

**Date of Preparation or Last Revision:** 15.01.2020**Prepared by:** MSDS.COM.AU Pty Ltd[www.msds.com.au](http://www.msds.com.au)**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC<sub>50</sub>: Lethal concentration, 50 percentLD<sub>50</sub>: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Flammable Liquids 3: Flammable liquids – Category 3

Acute Toxicity (Oral) 4: Acute toxicity – Category 4

Acute Toxicity (Inhalation) 3: Acute toxicity – Category 3

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

Toxic To Reproduction 2: Reproductive toxicity – Category 2

Aspiration Hazard 1: Aspiration hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

**Disclaimer**

This SDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - February 2016”

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