

Safety Data Sheet

according to WHS Regulations

Printing date 06.11.2019

Revision: 06.11.2019

1 Identification

Product Name: RELYON DIMETHOATE 400 INSECTICIDE

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Agricultural insecticide

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 (Oral) 2 H300 Fatal if swallowed.

Acute Toxicity (Dermal) 3 H311 Toxic in contact with skin.



health hazard

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



Acute Toxicity (Inhalation) 4 H332 Harmful if inhaled.

Skin Corrosion/Irritation 2 H315 Causes skin irritation.

Skin Sensitisation 1 H317 May cause an allergic skin reaction.

Signal Word Danger

Hazard Statements

H226 Flammable liquid and vapour.

H300 Fatal if swallowed.

H311 Toxic in contact with skin.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
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.
P260	Do not breathe 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.
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.
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.
P312	Call a POISON CENTER/doctor if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P361+P364	Take off immediately all 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 ₂ , powder or water spray.
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:**

Hazardous Components:		
CAS: 108-94-1	Cyclohexanone ⚠ Flammable Liquids 3, H226; ⚠ Acute Toxicity (Inhalation) 4, H332	45.3%
CAS: 60-51-5	Dimethoate (ISO) ⚠ Acute Toxicity (Oral) 2, H300; Acute Toxicity (Dermal) 3, H311; ⚠ STOT RE 1, H372; ⚠ Acute Toxicity (Inhalation) 4, H332; Skin Sensitisation 1A, H317	40%
CAS: 1330-20-7	Xylene ⚠ Flammable Liquids 3, H226; ⚠ Acute Toxicity (Dermal) 4, H312; Acute Toxicity (Inhalation) 4, H332; Skin Corrosion/Irritation 2, H315; STOT SE 3, H335	13.7%

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 for at least 30 minutes. Seek medical attention if symptoms occur.

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Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause symptoms similar to ingestion.

Skin Contact: Causes skin irritation. May cause an allergic skin reaction. Toxic in contact with skin. May cause symptoms similar to ingestion.

Eye Contact: May cause eye irritation, redness and watering.

Ingestion: Fatal if swallowed. May cause numbness, tingling sensations, excessive salivation and sweating, contracted pupils, incoordination, headaches, dizziness, nausea, abdominal cramps, sweating, blurred vision, breathing difficulties, slowed heart beat, unconsciousness, incontinence, convulsions and death. Aspiration may cause lung damage.

5 Fire Fighting Measures

Suitable Extinguishing Media: Water fog, alcohol resistant foam, dry chemical or carbon dioxide.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, nitrogen, sulphur and phosphorus, other nitrogen compounds, other sulphur compounds, other phosphorus compounds, hydrogen cyanide, smoke and water. Product is flammable. Vapours are heavier than air and may travel considerable distances to a source of ignition where they can ignite, flashback, or explode.

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:

Mouth respiratory protective device.

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 using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

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Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Inspect containers periodically for leaks. Protect from heat, sparks, open flames, hot surfaces and direct sunlight. Avoid temperatures above 40 °C. Keep away from oxidising agents, strong acids and strong bases. If storing for more than 3 months protect from temperatures above 30 °C.

8 Exposure Controls and Personal Protection

Exposure Standards:**CAS: 108-94-1 Cyclohexanone**

WES	TWA: 100 mg/m ³ , 25 ppm Sk
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CAS: 1330-20-7 Xylene

WES	STEL: 655 mg/m ³ , 150 ppm TWA: 350 mg/m ³ , 80 ppm
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Engineering Controls:

Maintain air concentration below occupational exposure standards, providing adequate ventilation. Use explosion-proof ventilating equipment.

Respiratory Protection:

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:

Form:	Liquid
Colour:	Peach coloured
Odour:	Mercaptan / Ketone odour
Odour Threshold:	No information available
pH-Value:	No information available
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	~140 °C
Flash Point:	39 °C
Flammability:	Flammable.
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	1.0 %

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Upper:	9.4 %
Vapour Pressure at 20 °C:	1.2 kPa (Xylene)
Relative Density at 20 °C:	~1.055
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Emulsifiable.
Partition Coefficient (n-octanol/water):	No information available
Viscosity:	No information available

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, strong acids and strong bases.

Hazardous Decomposition Products:

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

11 Toxicological Information

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification:

CAS: 108-94-1 Cyclohexanone

Oral	LD ₅₀	1,535 mg/kg (rat)
Dermal	LD ₅₀	948 mg/kg (rabbit)
Inhalation	LC ₅₀ /4 h	8,000 mg/l (rat)

CAS: 60-51-5 Dimethoate (ISO)

Oral	LD ₅₀	350-400 mg/kg (guinea pig)
		160 mg/kg (mice)
		180-330 mg/kg (rat)
		400-500 mg/kg (rabbit)
Dermal	LD ₅₀	100-600 mg/kg (rat)
Inhalation	LC ₅₀ /4 h	>2 mg/l (rat)

CAS: 1330-20-7 Xylene

Oral	LD ₅₀	1,590 mg/kg (mouse)
		4,300 mg/kg (rat)
Dermal	LD ₅₀	2,000 mg/kg (rabbit)
Inhalation	LC ₅₀ /4 h	6,350 mg/l (rat)

Acute Health Effects

Inhalation: May cause symptoms similar to ingestion.

Skin:

Causes skin irritation. May cause an allergic skin reaction. Toxic in contact with skin. May cause symptoms similar to ingestion.

Eye: May cause eye irritation, redness and watering.

Ingestion:

Fatal if swallowed. May cause numbness, tingling sensations, excessive salivation and sweating, contracted pupils, incoordination, headaches, dizziness, nausea, abdominal cramps, sweating, blurred vision, breathing

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difficulties, slowed heart beat, unconsciousness, incontinence, convulsions and death. Aspiration may cause lung damage.

Skin Corrosion / Irritation: Causes skin irritation.

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:

Cyclohexanone and xylenes are classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure:

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

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Causes damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects: May cause damage to the kidneys, liver, testicles and spleen.

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information:

The Australian Acceptable Daily Intake (ADI) for dimethoate for a human is 0.001 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 0.1 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2019).

12 Ecological Information

Ecotoxicity: Non-toxic to fish, aquatic plants, birds and earthworms.

Aquatic toxicity:

LC₅₀/96 h >100 mg/l (lepomis macrochirus)

EC₅₀/48 h 8.9 mg/l (daphnia)

CAS: 108-94-1 Cyclohexanone

EC₅₀/72 h 32.9 mg/l (algae)

LC₅₀/96 h 527 mg/l (fish)

CAS: 1330-20-7 Xylene

EC₅₀ >1-10 mg/l (bacterial)

>1-10 mg/l (scenedesmus subspicatus)

EC₅₀/48 h 3.1 mg/l (daphnia)

LC₅₀ 86 mg/l (leuciscus idus)

Persistence and Degradability: This product is biodegradable.

Bioaccumulative Potential:

Dimethoate and cyclohexanone are not expected to bioaccumulate. Xylenes may bioaccumulate if continuous exposure is maintained.

Mobility in Soil: Dimethoate and cyclohexanone are mobile in soil.

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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

UN Number ADG, IMDG, IATA	UN1993
Proper Shipping Name ADG, IMDG, IATA	FLAMMABLE LIQUID, N.O.S. (Dimethoate (ISO), cyclohexanone, xylenes)
Dangerous Goods Class ADG Class:	3 Flammable liquids.
Packing Group: ADG, IMDG, IATA	III
EMS Number:	F-E, <u>S-E</u>
Hazchem Code:	•3Y
Special Provisions:	223, 274
Limited Quantities:	5L
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Portable Tanks & Bulk Containers - Instructions:	T4
Portable Tanks & Bulk Containers - Special Provisions:	TP1, TP29

15 Regulatory Information

Australian Inventory of Chemical Substances:

CAS: 108-94-1	Cyclohexanone
CAS: 60-51-5	Dimethoate (ISO)
CAS: 1330-20-7	Xylene

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

Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 06.11.2019**Prepared by:** MSDS.COM.AU Pty Ltd

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)

LC₅₀: Lethal concentration, 50 percentLD₅₀: Lethal dose, 50 percent

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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) 2: Acute toxicity – Category 2

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

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

Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

Skin Sensitisation 1A: Skin sensitisation, Hazard Category 1A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – 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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