



# Safety Data Sheet

according to WHS Regulations

Printing date 21.12.2022

Revision: 21.12.2022

## 1 Identification

**Product Name: 4FARMERS DIMETHOATE 400 SYSTEMIC HERBICIDE****Other Means of Identification:** Mixture**Recommended Use of the Chemical and Restriction on Use:** Agricultural herbicide**Details of Manufacturer or Importer:**4Farmers Australia Pty Ltd  
70 McDowell Street  
Welshpool WA 6106**Phone Number:** +61 8 9356 3446**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) 3      H301 Toxic 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.



Skin Sensitisation 1      H317 May cause an allergic skin reaction.

**Signal Word** Danger**Hazard Statements**

H226 Flammable liquid and vapour.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H317 May cause an allergic skin reaction.

H372 Causes damage to organs through prolonged or repeated exposure.

**Precautionary Statements**

P233      Keep container tightly closed.

P210      Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P241      Use explosion-proof electrical/ventilating/lighting equipment.

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P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P240	Ground/bond container and receiving equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P321	Specific treatment (see on this label).
P312	Call a POISON CENTER/doctor if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P370+P378	In case of fire: Use to extinguish: CO2, powder or water spray.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P405	Store locked up.
P403+P235	Store in a well-ventilated place. Keep cool.
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:**

60-51-5	Dimethoate (ISO)	40%
	☠ Acute Toxicity (Oral) 3, H301; Acute Toxicity (Dermal) 3, H311; STOT RE 1, H372; ☠ Acute Toxicity (Inhalation) 4, H332; Skin Sensitisation 1A, H317	
108-94-1	Cyclohexanone	12%
	Flammable Liquids 3, H226; Acute Toxicity (Inhalation) 4, H332	

**Additional information:** Petroleum distillate CAS no. not supplied: 40%

### 4 First Aid Measures

**Inhalation:**

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

**Skin Contact:**

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

**Eye Contact:**

In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.

**Ingestion:**

If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

**Symptoms Caused by Exposure:**

Inhalation: Harmful if inhaled. Inhalation of vapours, fumes or aerosols may cause respiratory discomfort and distresse, central nervous system depression, which can lead to loss of coordination, impaired judgement and if exposure is prolonged, unconsciousness. Cyclohexane vapour irritates the nose and throat and may cause

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incoordination, low body temperature, damage to the lungs, liver and kidney, breathlessness, unconsciousness and even death depending on the dose.

**Skin Contact:** Toxic in contact with skin. There may be sweating and muscle twitches at site of contact. Symptoms may be delayed several hours after exposure. Entry into the blood stream through cuts, abrasions or lesions may produce systemic injury with harmful effects. Symptoms for skin absorption are the same as for inhalation.

**Eye Contact:** Direct eye contact may cause tearing, eyelid twitches, pupil contraction, loss of focus, blurred or dimmed vision with dilation of the pupils.

**Ingestion:** Toxic if swallowed. Ingestion may cause nausea, vomiting, depressed appetite, abdominal cramps and diarrhoea, thirst, acidic blood, breathing difficulties, convulsions, fainting, weakening of the immune system and death.

### 5 Fire Fighting Measures

**Suitable Extinguishing Media:**

Foam, dry chemical powder or carbon dioxide. Use water spray or fog for large fires only.

**Specific Hazards Arising from the Chemical:**

Containers close to fire should be removed if safe to do so. Use water to keep fire exposed containers cool.

Vapors are heavier than air and may travel long distance to a source of ignition and flash back.

Hazardous combustion products include oxides of carbon, nitrogen, phosphorus and sulfur, hydrogen chloride, phosgene and other pyrolysis products typical of burning organic material.

Flammable liquid.

**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 Safe Work Australia approved respiratory protection and full protective clothing. 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. Use only non-sparking tools.

### 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.

**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 and other sources of ignition. Keep away from strong oxidising agents.

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### 8 Exposure controls and personal protection

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

NES	TWA: 100 mg/m <sup>3</sup> , 25 ppm Sk
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**Engineering Controls:**

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

**Respiratory Protection:**

Use a Safe Work Australia approved respirator with combined dust and gas cartridge (canister) - Class A filter cartridge. See Australian Standards AS/NZS 1715 and 1716 for more information.

**Skin Protection:**

Elbow length PVC gloves, protective clothing, chemical resistant apron and safety boots. See Australian Standards AS/NZS 2161, 2210.1 and 2210.2 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>	Pale yellow
<b>Odour:</b>	Offensive mercaptan odour
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	No information available
<b>Melting point/freezing point:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	No information available
<b>Flash Point:</b>	39 °C
<b>Flammability:</b>	Flammable.
<b>Auto-ignition Temperature:</b>	No information available
<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>	1.1
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	Immiscible

### 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.

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**Incompatible Materials:**

Strong oxidising agents. Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime.

**Hazardous Decomposition Products:**

Hazardous combustion products include oxides of carbon, nitrogen, phosphorus and sulfur, hydrogen chloride and phosgene.

### 11 Toxicological Information

**Toxicity:****LD<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:****60-51-5 Dimethoate (ISO)**

Oral	LD <sub>50</sub>	30 mg/kg (human)
	LD <sub>50</sub>	350 mg/l (guinea pig)
	TDL <sub>0</sub>	60 mg/kg (rat)
Dermal	TDL <sub>0</sub>	286 mg/kg (human) (man)
	LD <sub>50</sub>	1000 mg/kg (rabbit)
	LD <sub>50</sub>	353 mg/kg (rat)

**108-94-1 Cyclohexanone**

Oral	LD <sub>50</sub>	1535 mg/kg (rat)
Dermal	LD <sub>50</sub> /4 h	948 mg/kg (rabbit)
Inhalation	TCL <sub>0</sub>	8000 mg/l (rat)
		75 ppm (human)

**Acute Health Effects****Inhalation:**

Harmful if inhaled. Inhalation of vapours, fumes or aerosols may cause respiratory discomfort and distress, central nervous system depression, which can lead to loss of coordination, impaired judgement and if exposure is prolonged, unconsciousness. Cyclohexane vapour irritates the nose and throat and may cause incoordination, low body temperature, damage to the lungs, liver and kidney, breathlessness, unconsciousness and even death depending on the dose.

**Skin:**

Toxic in contact with skin. There may be sweating and muscle twitches at site of contact. Symptoms may be delayed several hours after exposure. Entry into the blood stream through cuts, abrasions or lesions may produce systemic injury with harmful effects. Symptoms for skin absorption are the same as for inhalation.

**Eye:**

Direct eye contact may cause tearing, eyelid twitches, pupil contraction, loss of focus, blurred or dimmed vision with dilation of the pupils.

**Ingestion:**

Toxic if swallowed. Ingestion may cause nausea, vomiting, depressed appetite, abdominal cramps and diarrhoea, thirst, acidic blood, breathing difficulties, convulsions, fainting, weakening of the immune system and death. Aspiration into the lung from vomiting may cause chemical pneumonitis or pulmonary oedema.

**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.

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**Carcinogenicity:**

Cyclohexanone is 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:**

Repeated or prolonged contact will cause effects similar to acute symptoms in addition to impaired memory and loss of concentration, severe depression and acute psychosis, irritability, confusion, apathy, emotional lability, speech difficulties, headache, spatial disorientation, delayed reaction times, sleepwalking, drowsiness or insomnia.

Long term cyclohexanone exposure may cause liver and kidney changes, clouding of the eye lens and cataract development.

**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 NOEL 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: Comm. Dept. of Health and Ageing Office of Chemical Safety, 'ADI List', June 2014).

## 12 Ecological Information

**Ecotoxicity:** Dimethoate is highly toxic to bees. Dimethoate is moderate to highly toxic to birds.

**Aquatic toxicity:****60-51-5 Dimethoate (ISO)**

LC <sub>50</sub>	6 mg/l (bluegill)
	6.2 mg/l (rainbow trout)
	>5000 mg/l (fish) (cat fish)

**Persistence and Degradability:**

This product is biodegradable. It will not accumulate in the soil or water. The persistence of dimethoate and cyclohexanone in water/soil is low.

**Bioaccumulative Potential:** The bioaccumulation potential of dimethoate and cyclohexanone is low.

**Mobility in Soil:** The mobility of dimethoate and cyclohexanone is high.

## 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

UN3017

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**Proper Shipping Name****ADG**3017 ORGANOPHOSPHORUS PESTICIDE, LIQUID,  
TOXIC, FLAMMABLE, ENVIRONMENTALLY  
HAZARDOUS**IMDG, IATA**ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC,  
FLAMMABLE**Dangerous Goods Class****ADG Class:**

6.1 Toxic substances.

**Subsidiary Risk:**

3

**Packing Group:****ADG, IMDG, IATA**

III

**Marine pollutant:**

No

**Hazchem Code:**

3W

**Special Provisions:**

61, 223, 274

**Limited Quantities:**

5L

**Packagings & IBCs - Packing Instruction:**

P001, IBC03

**Packagings & IBCs - Special Packing Provisions:** Not applicable**Portable Tanks & Bulk Containers - Instructions:** T7**Portable Tanks & Bulk Containers - Special Provisions:**

TP2, TP28

## 15 Regulatory information

**Australian Inventory of Chemical Substances:**

60-51-5 Dimethoate (ISO)

108-94-1 Cyclohexanone

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

Poisons Schedule: 6

## 16 Other information

**Date of Preparation or Last Revision:** 21.12.2022**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) 3: Acute toxicity – Category 3

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

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

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

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

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### 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"

The information contained in this material safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. 4Farmers Australia Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.