

# SAFETY DATA SHEET



Revision date: 04-May-2020

Revision Number 1

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### Product identifier

**Product Name** Inferno® Herbicide

**Product Code(s)** 000000063071

### Other means of identification

**UN number** 3016

### Recommended use of the chemical and restrictions on use

**Recommended use** Agricultural herbicide for use as described on the product label.

**Uses advised against** No information available.

### Supplier

Sipcam Pacific Australia Pty. Ltd.  
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Street Address: Level 1, 191 Malop Street  
Geelong, Victoria, 3220  
Australia

Telephone Number: +61 (0) 3 5223 3746 (business hours)  
Facsimile: +61 (0) 3 5223 3756  
Website: www.sipcam.com.au

### Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

### GHS Classification

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

<b>Acute toxicity - Oral</b>	Category 3 - (H301)
<b>Acute toxicity - Dermal</b>	Category 3 - (H311)
<b>Acute toxicity - Inhalation (Dusts/Mists)</b>	Category 2 - (H330)
<b>Skin corrosion/irritation</b>	Category 2 - (H315)
<b>Serious eye damage/eye irritation</b>	Category 2 - (H319)
<b>Specific target organ toxicity (single exposure)</b>	Category 3 - (H335)

<b>Specific target organ toxicity (repeated exposure)</b>	Category 1 - (H372)
<b>Chronic aquatic toxicity</b>	Category 2 - (H411)

**SIGNAL WORD**

Danger

**Label elements**

Skull and crossbones  
Health hazard  
Exclamation mark  
Environment

**Hazard statements**

H301 - Toxic if swallowed  
H311 - Toxic in contact with skin  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H330 - Fatal if inhaled  
H335 - May cause respiratory irritation  
H372 - Causes damage to organs through prolonged or repeated exposure

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:  
H411 - Toxic to aquatic life with long lasting effects

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Wear respiratory protection  
Avoid release to the environment

**Precautionary Statements - Response**

Specific treatment (see First aid on this SDS)  
Specific treatment is urgent (see First Aid on this label)  
Specific treatment (see First aid on this SDS)  
Get medical advice/attention if you feel unwell  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
IF ON SKIN: Wash with plenty of soap and water  
Call a POISON CENTER or doctor/physician if you feel unwell  
Remove/Take off immediately all contaminated clothing  
Wash contaminated clothing before reuse  
If skin irritation occurs: Get medical advice/attention  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
Immediately call a POISON CENTER or doctor/physician  
Call a POISON CENTER or doctor/physician if you feel unwell  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
Rinse mouth  
Collect spillage

**Precautionary Statements - Storage**

Store locked up  
Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards which do not result in classification**

Toxic to aquatic life with long lasting effects

Poisons Schedule (SUSMP) 7

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substance**

Chemical name	CAS No.	Weight-%
Paraquat (present as paraquat dichloride)	1910-42-5	250 g/L
Other component(s)	-	to 100%

**4. FIRST AID MEASURES****Description of first aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Emergency telephone number</b>	Poisons Information Center, Australia: 13 11 26 Poisons Information Center, New Zealand: 0800 764 766
<b>Inhalation</b>	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area.
<b>Skin contact</b>	Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

**Most important symptoms and effects, both acute and delayed**

Symptoms Burning sensation.

**Indication of any immediate medical attention and special treatment needed**

Note to physicians Treat symptomatically.

**5. FIRE FIGHTING MEASURES****Suitable Extinguishing Media**Suitable Extinguishing Media Dry chemical, CO<sub>2</sub>, water spray or regular foam.

**Unsuitable extinguishing media** No information available.

#### **Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** Non-combustible. Environmentally hazardous.

#### **Special protective actions for fire-fighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**Hazchem code** 2X

## **6. ACCIDENTAL RELEASE MEASURES**

#### **Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

#### **Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

#### **Methods and material for containment and cleaning up**

**Methods for containment** Dike to collect large liquid spills.

**Methods for cleaning up** Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

## **7. HANDLING AND STORAGE**

#### **Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke when using this product. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

#### **Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. Do not contaminate food or feed stuffs. Keep out of the reach of children. Store locked up.

This material is a Sceduled Poison and must be stored, maintained and used in accordance with the relevant regulations.

**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

**Poisons Schedule (SUSMP)** 7

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Limits** . No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Paraquat (respirable sizes): 8hr TWA = 0.1 mg/m<sup>3</sup>

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

**Appropriate engineering controls**

**Engineering controls** Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

**Individual protection measures, such as personal protective equipment**

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.



**Eye/face protection** Goggles.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Overalls. Boots.

**Hand protection** Wear suitable gloves. Impervious gloves.

<b>Respiratory protection</b>	If determined by a risk assessment an inhalation risk exists, wear an organic vapour/particulate respirator or an air supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
<b>Environmental exposure controls</b>	No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Clear Liquid
<b>Appearance</b>	No information available.
<b>Color</b>	Dark blue
<b>Odor</b>	Strong. Pyridine.
<b>Odor threshold</b>	No information available.

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	5.0-6.5	None known
<b>Melting point / freezing point</b>	ca. 0°C	None known
<b>Boiling point / boiling range</b>	ca. 100°C @100kPa	None known
<b>Flash point</b>	Not applicable	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	ca. 1.1	None known
<b>Water solubility</b>	Miscible in water	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

### Other information

## 10. STABILITY AND REACTIVITY

### Reactivity

<b>Reactivity</b>	No information available.
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### Chemical stability

<b>Stability</b>	Stable under normal conditions.
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### Explosion data

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

### Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	None under normal processing.
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**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to avoid**

**Conditions to avoid** Exposure to light. Temperatures above 30 °C / 87 °F.

**Incompatible materials**

**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

**Hazardous decomposition products**

**Hazardous decomposition products** Carbon oxides. Nitrogen oxides. Hydrogen cyanide. Hydrogen chloride.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

**Information on likely routes of exposure**

**Product Information** . No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

**Inhalation** Irritating to respiratory system. Fatal if inhaled.

**Eye contact** Causes serious eye irritation.

**Skin contact** Causes skin irritation. Toxic in contact with skin.

**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Toxic if swallowed May be fatal if swallowed

**Symptoms** Redness. May cause redness and tearing of the eyes.

**Numerical measures of toxicity - Product Information**

No information available.

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Paraquat (present as paraquat dichloride)	= 57 mg/kg ( Rat )	= 79 mg/kg ( Rat ) = 325 mg/kg ( Rabbit ) = 80 mg/kg ( Rat )	= 1 mg/m <sup>3</sup> ( Rat ) 6 h

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Classification based on data available for ingredients. Irritating to skin.

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Causes serious eye irritation.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

<b>STOT - single exposure</b>	May cause respiratory irritation.
<b>STOT - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	No information available.
<b>Chronic effects:</b>	<p>Modelling on paraquat, predicted that for human skin and diluted solutions that systemic toxicity would be unlikely, but the risk increased significantly with damaged skin or concentrated solutions.</p> <p>The lethal dose for man is approximately 2-3 g of paraquat ion (equivalent to approx. 30 mg/kg). Death occurs by multi-organ failure and circulatory collapse within 48 hours or by a delayed proliferating fibrosis of the lung within 1-3 weeks.</p> <p>Studies in animals have shown that repeated doses do not produce carcinogenic nor teratogenic effects, or adverse reproductive effects. The dietary no effect level in the rat was 25 ppm of paraquat over 2 years.</p> <p>ADI (Acceptable Daily Intake) for humans (paraquat cation) is 0.004 mg/kg bw/day.</p>

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Ecotoxicity** Keep out of waterways. Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Paraquat (present as paraquat dichloride)	-	LC50: =2.15-13mg/L (96h, Brown trout) LC50: 8.5 - 19mg/L (96h, Lepomis macrochirus) LC50: 11.0 - 19.0mg/L (96h, Oncorhynchus mykiss)	-	EC50: 9.1 - 12.2mg/L (48h, Daphnia magna)

### Persistence and degradability

**Persistence and degradability** No information available.

### Bioaccumulative potential

**Bioaccumulation** No information available.

### Mobility

**Mobility in soil** After release, adsorbs onto soil.

### Other adverse effects

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste from residues/unused products** Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or



puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

## 14. TRANSPORT INFORMATION

### ADG

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

<b>UN number</b>	3016
<b>Proper shipping name</b>	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC
<b>Hazard class</b>	6.1
<b>Packing group</b>	III
<b>Hazchem code</b>	2X

### IATA

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

<b>UN number</b>	3016
<b>UN proper shipping name</b>	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	III

### IMDG

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

<b>UN number</b>	3016
<b>UN proper shipping name</b>	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC
<b>Transport hazard class(es)</b>	6.1
<b>Packing group</b>	III
<b>IMDG EMS Fire</b>	F-A
<b>IMDG EMS Spill</b>	S-A

## 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulations

##### Australia

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

See section 8 for national exposure control parameters

##### **Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)**

Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

**Poisons Schedule (SUSMP)** 7

**Major hazard (accident/incident planning) regulation**

Verify that license requirements are met

Hazardous chemical

Materials that meet the criteria for Toxic in table 15.3

Threshold quantity (T)

200

**International Inventories****AICS**

Contact supplier for inventory compliance status.

**Legend:****AICS** - Australian Inventory of Chemical Substances**International Regulations****The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**16. OTHER INFORMATION**Supplier Material Safety Data Sheet 07/ 2015  
Inferno is a registered trademark.**Reason(s) For Issue:** First Issue Primary SDS**Issuing Date:** 04-May-2020

This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

**Revision Note:**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

**Key literature references and sources for data used to compile the SDS**

EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Disclaimer**

**This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Sipcam Pacific Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.**

**If clarification or further information is needed, the user should contact their Sipcam representative or Sipcam Pacific Australia Pty Ltd at the contact details on page 1.**

**Sipcam Pacific Australia Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.**

**End of Safety Data Sheet**