COLIN CAMPBELL (CHEMICALS) PTY. LTD.

SAFETY DATA SHEET

Date of Issue: 1 December 2016

1) IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	**MONSTAR SC FUNGICIDE**
Other Names:	Flutolanil
Chemical Group:	Not specified
CAS No.:	66332-96-5
Recommended Use:	Fungicide for potatoes.
Supplier Details:	Colin Campbell (Chemicals) Pty Ltd ABN 29 000 045 590 5 Blackfriar Place Wetherill Park NSW 2164
Telephone:	(02) 9725 2544
Fax:	(02) 9604 7768
Email:	cccsyd@campbellchemicals.com.au
Website:	www.campbellchemicals.com.au
Contact:	Product Development Manager – (02) 9725 2544
Emergency Telephone Number:	13 11 26 (Poisons Information Centre)

2) HAZARDS IDENTIFICATION

This product is classified as : Xi, Irritating. Hazardous according to the criteria of SWA.

GHS classification: Skin irritation : Category 2

GHS Signal Words: WARNING

Hazard Statements :
H316 : Causes mild skin irritation.
H320 : Causes eye irritation

General Precautionary Statements :
P102 : Keep out of reach of children
P103 : Read label before use.

Pictograms :



Precautionary statements Prevention:
P261 Avoid breathing dust, fumes, gas, mist, vapours or spray.
P262 : Do not get in eyes, on skin, or on clothing..
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

P281 Use personal protective equipment as required.

Precautionary statements Response:	P302 + P352 IF ON SKIN : Wash with plenty of soap and water. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical attention
Storage :	P233 Keep container tightly closed. P234 Keep only in original container. .
Disposal:	P501 Dispose of contents/container to an approved waste disposal plant.
Other information :	Risk of mild eye and skin irritation, but a temporary effect. Ingestion of large amounts of this product may cause hypoactivity.

3) COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration
Flutolanil	66332-96-5	40%

4) FIRST AID MEASURES

If poisoning occurs, move out of dangerous area immediately contact a doctor or Poison Information Centre (Ph: 13 11 26) and follow the advice given.
Show this Safety Data Sheet to the doctor.

If inhaled:	Move to fresh air and keep at rest in a position comfortable for breathing. If necessary, call a doctor.
In case of skin contact:	Carefully remove contaminated clothing and shoes immediately. Wash affected areas with mild soap and plenty of water. If irritation persists, call a Poisons Information Centre or a doctor.
In case of eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing cautiously for several minutes. If eye irritation persists, call a doctor.
If swallowed:	Rinse mouth and afterwards drink plenty of water in small sips (dilution effect). DO NOT induce vomiting. Call a doctor.
First Aid facilities	Ensure eye wash and safety shower are available.
Medical Attention:	No information on symptoms. The first aid procedure should be established in consultation with a doctor responsible for industrial medicine.

5) FIRE FIGHTING MEASURES

Extinguishing media	Not combustible. Use extinguishing media suited to burning materials. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used.
Hazard from combustion products	The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both) fire gases. There is little risk of an explosion from this product if commercial quantities are involved in a fire.
Precautions for fighting fires	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire residues and contaminated fire extinguishing water in accordance with local regulations. Do not release contaminated water into the environment.
Hazchem Code	2X

6) ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean up process. Wear personal protective clothing and equipment as detailed in Section 8 PERSONAL PROTECTION. Keep people and animals away. Ensure adequate ventilation. Contain spill and absorb with earth, sand, clay or other absorbent material. Prevent spilled material from entering drains or watercourses. Collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place it in the drum. Seal drums and label ready for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc is unavoidable warn the local water authority.

7) HANDLING AND STORAGE

Handling	Keep out of reach of children. Dust explosion possible. Keep away from electrical appliances, open flames, any source of heat and sparks. No smoking or welding in the working area. Use equipment with electrical ground connection. When using do not eat, drink or smoke. Do not inhale spray mist. After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves and contaminated clothing.
Storage	Store in the tightly closed original container in a cool well ventilated area out of sunlight. Do not reuse empty container. Do not store with food, feed or other materials to be used or consumed by humans and animals.

8) EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Standards

TWA (mg/m^3)	STEL (mg/m^3)
Not set	Not set

Exposure limits have not been established by SWA for any of the significant ingredients in this product. However, overseas limits have been set:
10mg/m^3 (Japan Society for Occupational Health)
2mg/m^3 (manufacturer's exposure limit)
127mg/m^3, 50ppm (ACGIH)

Exposure standard – **Time Weighted Average (TWA**) means the average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five-day working week.

Short Term Exposure Limit (STEL) means the exposure level that may be equalled (but should not be exceeded for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL

Biological Limit Values None allocated

Engineering Controls Control process conditions to avoid contact. Use in a well ventilated area only. Facilities storing or utilising this material should be equipped with an eyewash facility and safety shower.

Personal Protective Equipment

Eyes:	Safety goggles. Eye wash bottle with pure water.
Clothing:	Impervious overalls buttoned to the neck and wrists.
Gloves:	Polyvinyl alcohol or nitrile-butyl-rubber gloves. Before removing gloves clean them with soap and water.
Respiratory:	Not necessary unless adequate ventilation is inadequate. If inhalation is likely an AS/NZS 1715/1716 approved respirator should be worn.

9) PHYSICAL AND CHEMICALS PROPERTIES

Appearance:	White viscous liquid
Odour:	No data
pH:	5.0-8.0 as 1% aqueous suspension at 20^{O}C
Vapour pressure (active constituent):	No data available
Vapour density:	Not available
Boiling point:	No data available
Melting point:	No data available
Solubility:	Disperses in water.
Specific gravity:	1.105-1.145 g/L at 20^{o}C
Viscosity:	Not applicable
Flash point :	Expected to be >85^{O}C
Flammability (explosive) limit:	No data available
Explosion risk:	No data available
Auto ignition temperature:	Not applicable
Partition coefficient (octanol/water):	No data available

10) STABILITY AND REACTIVITY

Chemical stability:	Stable for 3 years when stored in the unopened sales container under normal warehouse conditions.
Conditions to avoid:	None identified
Incompatible materials :	Not known.
Hazardous decomposition products:	Combustion or thermal decomposition will evolve toxic vapours (HF, CO, NO_x, etc)
Hazardous reactions:	Stable under recommended storage conditions. No decomposition if used as directed.

10) TOXICOLOGICAL INFORMATION

Inhalation:	No data available
Skin contact:	Not irritating (rabbit)
Eye contact:	Not irritating (rabbit)
Ingestion:	No data available.

Chronic toxicity:

Germ cell mutagenicity:	No data available.
Carcinogenicity:	None.
Toxic to reproduction:	None
Specific target organ toxicity (repeated exposure):	None

Acute toxicity:

Oral toxicity:	LD50 (rat) >5,000 mg/kg.
Dermal toxicity :	LD50 (rat) >4,000 mg/kg
Inhalation toxicity:	No data available.
Sensitisation:	Possible sensitiser (guinea pig)
Respiratory sensitisation	No data available
Specific target organ toxicity (single exposure):	No data available.

11) ECOLOGICAL INFORMATION

Moderately toxic to aquatic organisms and may cause adverse effects in the aquatic environment. It has a low hazard to birds, earthworms, bees and other beneficial insects DO NOT contaminate streams, rivers or waterway with Monstar or the used containers

Ecotoxicity: **Flutolanil:**
Toxicity to fish:
LC_{50} (48 hr) bluegill sunfish >5.4 mg/L
Toxicity to Daphnia :
EC_{50} (48 hr) 8 mg/L
Toxicity to algae:
EbC50 (48 hr) 0.97 mg/L

Environmental fate, persistence and degradability, mobility	Flutolanil has low mobility in soils and is unlikely to leach into groundwater.
Identified harmful effects on environment:	No data available.
Other precautions:	Do not contaminate dams, waterways or sewers with this product or used containers.

12) DISPOSAL CONSIDERATIONS

This product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used containers. Do not dispose of undiluted chemical on-site. Break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Combustion possible in in suitable incineration plants (flue gas desulphurisation)

13) TRANSPORT INFORMATION

Not subject to the ADG Code when transported by road or rail in Australi, in packages 500kg(L) or less; or IBCs, but classed as Dangerous by IATA and IMDG/IMSBC when carried by air or sea transport (see details below).

UN Number : 3082
Correct shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (flutolanil)
Hazchem Code : 2X
Marine pollutant:: Yes
Dangerous Goods Class : Class 9 : Miscellaneous Dangerous Goods
Packing Group : III

14) REGULATORY INFORMATION

Registered under the Agricultural and Veterinary Chemicals Act 1988 (Commonwealth) Australian Pesticides and Veterinary Medicines Authority approval number 66363

15) OTHER INFORMATION

Date of revision : 1 December 2016
Reason for revision : Upgrading to GHS format.

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 the how the product will be handled and used in the workplace including in conjunction with other products.

END OF SDS