SAFETY DATA SHEET

Revision date: 13-Feb-2023



Revision Number 8

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier			
Product Name	DSF 800		
Product Code(s)	00000017850		
Other means of identification			
CAS No.	68609-68-7		
Recommended use of the cher	nical and restrictions on use		
Recommended use	Mining chemical.		
Uses advised against	No information available		

Supplier Ixom Operations Pty Ltd ABN: 51 600 546 512 Level 8, 1 Nicholson Street Melbourne 3000 Australia

Telephone Number: +61 3 9906 3000

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

Not 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).

Skin corrosion/irritation	Category 2
Reproductive toxicity	Category 2

SIGNAL WORD Warning

Label elements

Health hazard Exclamation mark



Hazard statements

H315 - Causes skin irritation H361d - Suspected of damaging the unborn child

Precautionary Statements - Prevention

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Wash hands thoroughly after handling Wear protective gloves / protective clothing / eye protection / face protection Use personal protective equipment as required **Precautionary Statements - Response** If exposed or concerned: Get medical advice/attention Specific treatment (see First aid on this SDS) IF ON SKIN: Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse **Precautionary Statements - Storage** Store locked up **Precautionary Statements - Disposal** Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

Other hazards which do not result in classification

Harmful to aquatic life with long lasting effects

Poisons Schedule (SUSMP) None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical name	CAS No.	Weight-%
1-Hexanol, 2-ethyl-, manufacture of, by product	68609-68-7	100%
from, distillation residues		

4. FIRST AID MEASURES

Description of first aid measures

General advice	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.
Inhalation	Remove to fresh air. Call a physician if symptoms occur.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. Call a physician if symptoms occur.
Ingestion	Rinse mouth thoroughly with water. Do NOT induce vomiting. Get medical attention if symptoms occur.

Symptoms	Irritation. Erythema (skin redness).		
Indication of any immediate medica	al attention and special treatment needed		
Note to physicians	Treat symptomatically.		
5. FIRE FIGHTING MEASU	RES		
Suitable Extinguishing Media			
Suitable Extinguishing Media	Dry chemical, CO2, water spray or alcohol-resistant foam.		
Unsuitable extinguishing media	Solid water jet/stream may scatter and spread the fire.		
Specific hazards arising from the chemical			
Specific hazards arising from the chemical	Combustible liquid.		
Hazardous combustion products	Carbon monoxide. Carbon dioxide (CO2).		
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.		

6. ACCIDENTAL RELEASE MEASURES

Most important symptoms and effects, both acute and delayed

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin and eyes. Avoid breathing vapors or mists. Evacuate personnel to safe areas. Stop leak if you can do it without risk. Do not touch or walk through spilled material. Use personal protective equipment as required. Wash thoroughly after handling.
For emergency responders	Use personal protection recommended in Section 8.
Environmental precautions	
Environmental precautions	See Section 12 for additional Ecological Information.
Methods and material for containme	ent and cleaning up
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. For large amounts, pump off product.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin and eyes. Avoid breathing vapors or mists. Wash thoroughly after handling. Use personal protection equipment. Not to be used by pregnant workers and workers who have recently given birth or who are breastfeeding. Take precautionary

measures against static discharges.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from sources of heat or ignition. Keep container closed when not in use.	
	Classified as a C2 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.	
Incompatible materials	Acids. Bases. Strong oxidizing agents.	
Poisons Schedule (SUSMP)	None allocated	

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits No value assigned for this specific material by Safe Work Australia.

Appropriate engineering controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

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, SAFETY GLASSES, GLOVES, RESPIRATOR.

Eye/face protection	Glasses.	
Skin and body protection	Protective shoes or boots. Overalls.	
Hand protection	Impervious gloves.	
Respiratory protection	If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.	
Environmental exposure controls	No information available.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and o	chemical properties	
Physical state	Liquid	
Appearance	No information available	
Color	Dark yellow	
Odor	Faint, Product specific	
Odor threshold	No information available	
Property	Values	Remarks • Method
рН	No data available	None known
pH (as aqueous solution)	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	180-350°C	None known
Flash point	96°C	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive	No data available	
limits		
Lower flammability or explosive	No data available	
limits		
Vapor pressure	No data available	None known
Vapor density	>1	None known
Relative density	0.91 @20°C	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

10. STABILITY AND REACTIVITY

Reactivity	
Reactivity	Reacts with strong oxidising agents.
Chemical stability	
Stability	Stable under normal conditions.
Explosion data Sensitivity to mechanical impac	t None.
Sensitivity to static discharge	Yes.
Possibility of hazardous reactions	
Possibility of hazardous reactions	Contaminated organic fibrous materials may catch fire in contact with air.
Conditions to avoid	
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	
Incompatible materials	Acids. Bases. Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO2).

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	May cause irritation.
Eye contact	May cause irritation.
Skin contact	Causes skin irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Symptoms	Irritation. Erythema (skin redness).

Numerical measures of toxicity - Product Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1-Hexanol, 2-ethyl-, manufacture of, by product from, distillation residues	> 5000 mg/kg (Rat)	-	>0.11 mg/L (Rat)7 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	Causes skin irritation.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	Not a skin sensitizer. (guinea pig).
Germ cell mutagenicity	No evidence of mutagenic effects.
Carcinogenicity	Not listed as carcinogenic according to IARC. (IARC - International Agency for Research on Cancer).
Reproductive toxicity	H361d - Suspected of damaging the unborn child.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity

Keep out of waterways. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
1-Hexanol, 2-ethyl-, manufacture of, by product from, distillation residues	-	LC50: =50mg/L (96h, Brachydanio rerio)	-	-

Persistence and degradability

Persistence and degradability	Not readily biodegradable.
Bioaccumulative potential	
Bioaccumulation	Material does not bioaccumulate.
Mobility	
Mobility in soil	No information available.
Other adverse effects	

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

ADG

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

IATA

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

IMDG

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

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

National regulations

Australia

Not 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

Poisons Schedule (SUSMP) None allocated

International Inventories	
AIIC	This material is listed on the Australian Inventory of Industrial Chemicals.

Legend: AllC- Australian Inventory of Industrial Chemicals

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

Ixom Operations Pty Ltd Safety Data Sheet 02/2023

Reason(s) For Issue: 5 Yearly Revised Primary SDS

Issuing Date: 13-Feb-2023

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 Sect	ion 8: EXPOSURE CONTROLS/PERSONAL	<u>PROTECTION</u>	
TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
С	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 Australian Industrial Chemicals Introduction Scheme (AICIS) 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 Ixom Operations 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 Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations 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