

SAFETY DATA SHEET



Revision date: 03-Apr-2024

Revision Number 1

Section 1: Identification

Product identifier

Product Name DSF 611A
Product Code(s) 000000054617

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use Mining chemical.
Uses advised against No information available.

Details of manufacturer or importer

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.

Section 2: Hazard identification

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

GHS Classification

Aspiration hazard	Category 1
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 2

Label elements

Health hazard
Corrosion

**Signal word**

DANGER

Hazard statements

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H318 - Causes serious eye damage

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/clothing and eye/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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

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.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Do NOT induce vomiting.

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**Section 3: Composition and information on ingredients**

Chemical name	CAS No.	Weight-%
1-Hexanol, 2-ethyl-, manufacture of, by product from, distillation residues	68609-68-7	>60
2-(2-(2-butoxyethoxy)ethoxy)ethanol	143-22-6	10-<30
Alcohols	-	10-<30
Non hazardous component(s)	-	to 100

Section 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 immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get immediate medical attention.
Skin contact	Wash skin with soap and water. Call a physician immediately.
Ingestion	Rinse mouth thoroughly with water. Do NOT induce vomiting. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Aspiration risk: may cause lung damage if swallowed.
Effects of Exposure	No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically. Can cause corneal burns. Aspiration may cause pulmonary edema and pneumonitis.
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Section 5: Firefighting measures**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. Vapours are heavier than air and may spread along floors. Vapors may travel a considerable distance to a source of ignition and flash back.

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

Special protective actions for fire-fighters

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

Section 6: Accidental release measures**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 containment 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.

Section 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. Take precautionary measures against static discharges. Not to be used by pregnant workers and workers who have recently given birth or who are breastfeeding.
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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.
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Incompatible materials	Acids. Bases. Strong acids. Strong oxidizing agents.
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Section 8: Exposure controls and personal protection

Control parameters

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

Engineering controls	Ensure adequate ventilation, especially in confined areas.
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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	Tight sealing safety goggles.
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.
Thermal hazards	No information available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Color	Light yellow
Odor	Mild
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	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	No data available	None known
Flash point	>94°C (estimated)	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 limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Vapor density	>1	None known
Relative density	ca. 0.94	None known
Water solubility	No data available	None known
Solubility(ies)	Miscible in water	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

Section 10: Stability and reactivity

Reactivity

Reactivity	Reacts with strong oxidising agents.
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Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

Possibility of hazardous reactions**Possibility of hazardous reactions** None under normal processing.**Conditions to avoid****Conditions to avoid** Heat, flames and sparks.**Incompatible materials****Incompatible materials** Acids. Bases. Strong acids. Strong oxidizing agents.**Hazardous decomposition products****Hazardous decomposition products** Carbon monoxide. Carbon dioxide (CO₂).**Section 11: Toxicological information****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** Causes serious eye damage.**Skin contact** Causes skin irritation.**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed.**Symptoms** Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Aspiration risk: may cause lung damage if swallowed.**Acute toxicity****Numerical measures of toxicity - Product Information**

No information available

Component 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
2-(2-(2-butoxyethoxy)ethoxy)ethanol	= 5300 mg/kg (Rat)	= 3540 mg/kg (Rabbit)	-

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. Classification is based on mixture calculation methods based on component data.**Serious eye damage/eye irritation** Causes serious eye damage. Classification is based on mixture calculation methods based on component data.

Respiratory or skin sensitization	Not a skin sensitizer. (guinea pig). Classification is based on mixture calculation methods based on component data.
Germ cell mutagenicity	No information available.
Carcinogenicity	No component contained in this material is listed as carcinogenic according to the International Agency for Research on Cancer (IARC).
Reproductive toxicity	Suspected of damaging the unborn child. Classification is based on mixture calculation methods based on component data.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	May be fatal if swallowed and enters airways. Classification is based on mixture calculation methods based on component data.

Section 12: Ecological information

Ecotoxicity

Aquatic ecotoxicity Keep out of waterways. May be harmful to aquatic life.

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)	-	-
2-(2-(2-butoxyethoxy)ethoxy)ethanol	EC50: >500mg/L (72h, Desmodosmus subspicatus)	LC50: =2400mg/L (96h, Pimephales promelas)	-	EC50: >500mg/L (48h, Daphnia magna)

Terrestrial ecotoxicity There is no data for this product.

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
1-Hexanol, 2-ethyl-, manufacture of, by product from, distillation	1.6

residues	
2-(2-(2-butoxyethoxy)ethoxy)ethanol	0.51

Mobility

Mobility No information available.

Other adverse effects

Other adverse effects No information available.

Section 13: Disposal considerations**Waste treatment methods**

Waste from residues/unused products Refer to Waste Management Authority. Dispose of material through a licensed waste contractor.

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.

See section 8 for more information

Section 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.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

Section 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

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

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

No poisons schedule number allocated

Poison Schedule Number Not applicable

Australian Industrial Chemicals Introduction Scheme (AICIS)

Contact supplier for inventory compliance status

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
1-Hexanol, 2-ethyl-, manufacture of, by product from, distillation residues - 68609-68-7	Present	-
2-(2-(2-butoxyethoxy)ethoxy)ethanol - 143-22-6	Present	-

Illicit Drug Precursors/Reagents

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

International Inventories

AIC	All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.
NZIoC	Contact supplier for inventory compliance status.
TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.

Legend:

AIC- Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and 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

Section 16: Other information

Reason(s) For Issue: First Issue Primary SDS

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

Revision date: 03-Apr-2024

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**

SVHC: Substances of Very High Concern for Authorization:
 PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
 vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
 STOT: Specific Target Organ Toxicity
 ATE: Acute Toxicity Estimate
 LC50: 50% Lethal Concentration
 LD50: 50% Lethal Dose

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

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 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)
 National Institute of Technology and Evaluation (NITE)
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 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)
 U.S. 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
 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