

# SAFETY DATA SHEET



Revision date: 25-Aug-2020

Revision Number 1

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### Product identifier

**Product Name** DSF 040  
**Product Code(s)** 000000053917

### Other means of identification

**Pure substance/mixture** Mixture

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

**Recommended use** Frother.  
**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).

<b>Flammable liquids</b>	Category 4
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### **SIGNAL WORD**

Warning

### Label elements

### **Hazard statements**

H227 - Combustible liquid

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:  
H303 - May be harmful if swallowed

**Precautionary Statements - Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Wear protective gloves / protective clothing / eye protection / face protection

**Precautionary Statements - Response**

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool

**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**

**Poisons Schedule (SUSMP)** None allocated

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Not applicable

**Mixture**

Chemical name	CAS No.	Weight-%
Diethyl phthalate	84-66-2	30-60
Hexanol	25917-35-5	10-<50
1-Hexanol	111-27-3	1-<30
Pentanol	30899-19-5	1-<30
Cyclohexanol	108-93-0	1-<10
Other component(s)	-	to 100

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

<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. Call a physician if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Get medical attention if symptoms occur.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information.

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

**Symptoms** No information available.

**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**            Alcohol resistant foam. Dry chemical. Carbon dioxide (CO2).

**Unsuitable extinguishing media**        No information available.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical**    In the event of fire, cool tanks with water spray. Most vapors are heavier than air. Vapors may spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may travel to source of ignition and flash back.

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

**Personal precautions**                      Evacuate personnel to safe areas. Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use personal protective equipment as required. Pay attention to flashback. Take precautionary measures against static discharges. Do not touch or walk through spilled material. See section 8 for more information.

**Other information**                          Ventilate the area.

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

**Environmental precautions**

**Environmental precautions**                Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Refer to protective measures listed in Sections 7 and 8.

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

**Methods for containment**                    Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

**Methods for cleaning up**                    Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Take precautionary measures against static discharges. Use non-sparking tools.

**7. HANDLING AND STORAGE****Precautions for safe handling**

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<b>Advice on safe handling</b>	Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>General hygiene considerations</b>	Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended.
<b><u>Conditions for safe storage, including any incompatibilities</u></b>	
<b>Storage Conditions</b>	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.
<b>Incompatible materials</b>	Oxidizing agents. Reducing agents.
<b>Poisons Schedule (SUSMP)</b>	None allocated

## **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):

Cyclohexanol: 8hr TWA = 206 mg/m<sup>3</sup> (50 ppm), Sk  
Diethyl phthalate: 8hr TWA = 5 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.

'Sk' (skin) Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

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, SAFETY GLASSES, GLOVES, RESPIRATOR.



**Eye/face protection**

Glasses.

**Skin and body protection**

Wear suitable protective clothing. Overalls. Antistatic boots.

**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 chemical properties**

<b>Physical state</b>	Clear Liquid
<b>Appearance</b>	No information available.
<b>Color</b>	Colourless to Pale Yellow
<b>Odor</b>	Alcohol
<b>Odor threshold</b>	No information available.

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	61.0°C	Pensky-Martens Closed Cup (PMCC)
<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>	>1	None known
<b>Relative density</b>	0.98	None known
<b>Water solubility</b>	Partially miscible	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**

**Reactivity** No information available.

**Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** Yes.

**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** Oxidizing agents. Reducing agents.

**Hazardous decomposition products**

**Hazardous decomposition products** Carbon oxides.

**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** Inhalation of vapors in high concentration may cause irritation of respiratory system.

**Eye contact** May cause irritation.

**Skin contact** May cause irritation.

**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

**Symptoms** No information available.

**Numerical measures of toxicity - Product Information**

No information available.

**Numerical measures of toxicity - Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Diethyl phthalate	= 8600 mg/kg ( Rat )	> 11200 mg/kg ( Rat )	> 4.64 mg/L ( Rat ) 6 h

1-Hexanol	= 3210 mg/kg ( Rat ) = 720 mg/kg ( Rat )	1500 - 2000 mg/kg ( Rabbit )	> 21 mg/L ( Rat ) 1 h
Pentanol	= 2200 mg/kg ( Rat )	= 2000 mg/kg ( Rabbit )	-
Cyclohexanol	= 2.06 g/kg ( Rat ) = 1400 mg/kg ( Rat )	501 - 794 mg/kg ( Rabbit )	> 3.63 mg/L ( Rat ) 4 h

See section 16 for terms and abbreviations

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

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Ecotoxicity** Keep out of waterways.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Diethyl phthalate	EC50: =23mg/L (72h, Desmodesmus subspicatus) EC50: =21mg/L (96h, Desmodesmus subspicatus) EC50: 42 - 255mg/L (72h, Pseudokirchneriella subcapitata) EC50: 2.11 - 4.29mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =17mg/L (96h, Pimephales promelas) LC50: =16.8mg/L (96h, Pimephales promelas) LC50: =22mg/L (96h, Lepomis macrochirus) LC50: =16.7mg/L (96h, Lepomis macrochirus) LC50: =12mg/L (96h, Oncorhynchus mykiss)	-	EC50: 36 - 74mg/L (48h, Daphnia magna) EC50: =86mg/L (48h, Daphnia magna)
1-Hexanol	-	LC50: 89.7 - 106mg/L (96h, Pimephales promelas) LC50: =144mg/L (96h, Brachydanio rerio)	-	EC50: =201mg/L (24h, Daphnia magna)
Pentanol	EC50: =493mg/L (72h, Desmodesmus subspicatus) EC50: =181mg/L (96h,	LC50: =472mg/L (96h, Pimephales promelas) LC50: =530mg/L (96h, Brachydanio rerio) LC50:	-	EC50: =260mg/L (48h, Daphnia magna) EC50: 607 - 841mg/L (48h, Daphnia magna)

	Desmodesmus subspicatus)	=650mg/L (96h, Lepomis macrochirus) LC50: =400mg/L (96h, Oncorhynchus mykiss)		
Cyclohexanol	EC50: =29.2mg/L (72h, Desmodesmus subspicatus) EC50: =29mg/L (96h, Desmodesmus subspicatus)	LC50: =704mg/L (96h, Pimephales promelas) LC50: =1033mg/L (96h, Pimephales promelas) LC50: =1100mg/L (96h, Lepomis macrochirus)	-	EC50: >500mg/L (24h, Daphnia magna Straus) EC50: =578mg/L (24h, Daphnia magna)

**Persistence and degradability**

**Persistence and degradability** No information available.

**Bioaccumulative potential**

**Bioaccumulation** No information available.

**Component Information**

Chemical name	Partition coefficient
Diethyl phthalate	2.35
1-Hexanol	2.03
Pentanol	1.16
Cyclohexanol	1.25

**Mobility**

**Mobility in soil** No information available.

**Other adverse effects****Endocrine Disruptor Information**

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Endocrine disrupting potential
Diethyl phthalate	Group III Chemical	-	-

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

**Waste from residues/unused products** Should not be released into the environment. 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.

**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

#### **National pollutant inventory**

Subject to reporting requirement

Chemical name	National pollutant inventory
1-Hexanol - 111-27-3	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total
Cyclohexanol - 108-93-0	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total

#### International Inventories

##### **AICS**

All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.

##### **Legend:**

- 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

**Reason(s) For Issue:** First Issue Primary SDS

**Issuing Date:** 25-Aug-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  
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**