SAFETY DATA SHEET

Revision date: 17-Dec-2020



Revision Number 1

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier			
Product Name	MIRAMER PU 320		
Product Code(s)	00000053948		
Other means of identification			
Recommended use of the chemical and restrictions on use			
Recommended use	Resin of coatings and inks.		
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
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3

SIGNAL WORD Warning

Label elements

Exclamation mark



Hazard statements H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations: H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - Prevention

Avoid breathing dust / fume / gas / mist / vapours / spray Wash face, hands and any exposed skin thoroughly after handling Contaminated work clothing should not be allowed out of the workplace Wear protective gloves / protective clothing / eye protection / face protection Avoid release to the environment **Precautionary Statements - Response** 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 If eye irritation persists: Get medical advice/attention IF ON SKIN: Wash with plenty of soap and water If skin irritation or rash occurs: Get medical advice/attention Take off contaminated clothing and wash it before reuse Wash contaminated clothing before reuse **Precautionary Statements - Storage** No storage statements **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 General Hazards

Poisons Schedule (SUSMP) None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Contains 85% Aliphatic urethane acrylate.

Chemical name	CAS No.	Weight-%
1,6-Hexanediol diacrylate	13048-33-4	15

4. FIRST AID MEASURES

Description of first aid measures

Inhalation	Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. 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 without medical advice. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.		
Most important symptoms and effe	ects, both acute and delayed		
Symptoms	Irritation. Erythema (skin redness). Rashes.		
Indication of any immediate medic	al attention and special treatment needed		
Note to physicians	Treat symptomatically.		
5. FIRE FIGHTING MEASURES			
Suitable Extinguishing Media			
Suitable Extinguishing Media	Dry chemical, CO2, water spray or regular foam.		
Unsuitable extinguishing media	No information available.		
Specific hazards arising from the chemical			
Specific hazards arising from the chemical	Combustible material. Cool drums with water spray.		
Hazardous combustion products	Carbon oxides.		
Special protective actions for fire-f	ighters		
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	Avoid contact with skin, eyes and inhalation of vapors. Remove all sources of ignition. Evacuate personnel to safe areas. Use personal protective equipment as required.	
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	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	Avoid contact with skin and eyes. Avoid breathing vapors or mists. Remove all sources of ignition. Wash thoroughly after handling. To facilitate product transfer from original container, product may be heated to 40°C. Do not use direct steam or band heaters to heat product. Hot boxes or hot rooms are recommendable for heating the product.	
Conditions for safe storage, includi	ing any incompatibilities	
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Protect from direct sunlight. Keep at temperatures between 5 °C and 30 °C. 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	Oxidizing agents. Radical forming initiators. Isocyanates. Peroxides. Strong alkalis. Reactive metals.	
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

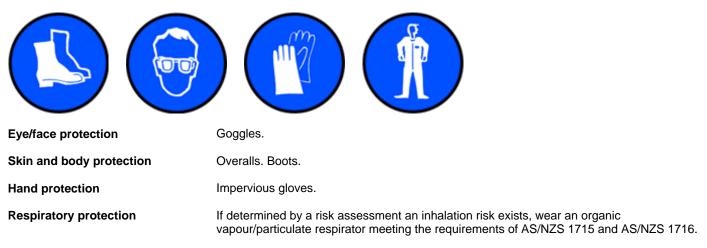
Engineering controls

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, CHEMICAL GOGGLES, GLOVES.



Environmental exposure controls No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	
Appearance	No information available.	
Color	No information available.	
Odor	Ester -like	
Odor threshold	No information available.	
Property_	Values	Remarks • Method
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	100 °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	<1 mmHg @20°C	None known
Vapor density	No data available	None known
Relative density	1.08	None known
Water solubility	Immiscible in water	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	30000-70000 cPs @25°C	None known

Other information

10. STABILITY AND REACTIVITY

No information available.		
Stable under normal conditions.		
Explosion data Sensitivity to mechanical impact None.		
None.		
Heating causes rise in pressure with risk of bursting.		
Hazardous polymerization may occur.		

Conditions to avoid		
Conditions to avoid	Heat, flames and sparks. Direct sunlight.	
Incompatible materials		
Incompatible materials	Oxidizing agents. Radical forming initiators. Isocyanates. Peroxides. Strong alkalis. Reactive metals.	
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	May cause irritation.
Eye contact	Causes serious eye irritation.
Skin contact	Causes skin irritation. May cause sensitization by skin contact.
Ingestion	Harmful if swallowed.
Symptoms	Irritation. Erythema (skin redness). Rashes.

Numerical measures of toxicity - Product Information

No information available.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
1,6-Hexanediol diacrylate	= 5 g/kg (Rat)	= 3600 mg/kg (Rabbit) = 3600	-
		μL/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	Irritating to skin. Classification is based on mixture calculation methods based on component data.
Serious eye damage/eye irritation	Causes serious eye irritation. Classification is based on mixture calculation methods based on component data.
Respiratory or skin sensitization	May cause sensitization by skin contact. Classification is based on mixture calculation methods based on component data.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.

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.			
Persistence and degradability				
Persistence and degradability	No information available.			
Bioaccumulative potential				
Bioaccumulation	No information available.			
<u>Mobility</u>				
Mobility in soil	No information available.			
Other adverse effects				
13. DISPOSAL CONSIDERATIONS				
Waste treatment methods				
Waste from residues/unused	Dispose of in accordance with local regulations. Dispose of waste in accordance with			

Contaminated packaging	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld
	containers.

environmental legislation.

14. TRANSPORT INFORMATION

<u>ADG</u>

products

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.

<u>IATA</u>

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

<u>Australia</u>

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	All the
	<u> </u>

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

Legend: AIIC - 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

Supplier Safety Data Sheet 08/ 2019

Reason(s) For Issue: First Issue Primary SDS

Issuing Date: 17-Dec-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 Sec	tion 8: EXPOSURE CONTROLS/PERSONAL	PROTECTION	
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