SAFETY DATA SHEET

Revision date: 09-Aug-2022

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product identifier	
Product Name	PERMETHYL 99A
Product Code(s)	00000039103
Other means of identification	
UN number	2286
CAS No.	13475-82-6
Synonyms	Pentamethylheptane; Isododecane
Pure substance/mixture	Substance
Recommended use of the chemical	and restrictions on use
Recommended use	Cosmetics applications.
Uses advised against	No information available.

Supplier

Ixom Operations Pty Ltd (Bronson & Jacobs division) - incorporated in Australia ABN:51 600 546 512 70 Marple Avenue Villawood NSW 2163 Australia

Telephone Number: +61 2 8717 2929 Facsimile: +61 2 9755 9611

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

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).





Flammable liquids	Category 3
Aspiration hazard	Category 1
Chronic aquatic toxicity	Category 4

SIGNAL WORD Danger

Label elements

Flame Health hazard



Hazard statements

H226 - Flammable liquid and vapor H304 - May be fatal if swallowed and enters airways

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations: H413 - May cause long lasting harmful effects to aquatic life

Precautionary Statements - Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Keep container tightly closed Ground/bond container and receiving equipment Use explosion-proof electrical, ventilating, lighting equipment Use only non-sparking tools Take action to prevent static discharges Wear protective gloves / protective clothing / eye protection / face protection Avoid release to the environment IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Do NOT induce vomiting In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish. Precautionary Statements - Storage Store in a well-ventilated place. Keep cool 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

AUH066 - Repeated exposure may cause skin dryness or cracking **General Hazards**

Poisons Schedule (SUSMP) None allocated

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical name	CAS No.	Weight-%
Heptane, 2,2,4,6,6-pentamethyl-	13475-82-6	100

4. FIRST AID MEASURES

Description of first aid measures

Description of mist and 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 and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Call a physician if symptoms occur.			
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.			
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.			
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Call a physician immediately.			
Most important symptoms and effe	ects, both acute and delayed			
Symptoms	Aspiration risk: may cause lung damage if swallowed.			
Indication of any immediate medic	al attention and special treatment needed			
Note to physicians Delayed pulmonary edema may occur. Treat symptomatically.				
5. FIRE FIGHTING MEASU Suitable Extinguishing Media Suitable Extinguishing Media	RES Foam. Carbon dioxide (CO2). Dry chemical powder.			
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient.			
Specific hazards arising from the c	hemical			
Specific hazards arising from the chemical	Flammable. On burning will emit toxic fumes, including those of oxides of carbon. Risk of ignition. Keep product and empty container away from heat and sources of ignition. Containers may explode when heated. In the event of fire, cool tanks with water spray. Runoff may create fire or explosion hazard. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.			
	Containers may explode when heated. In the event of fire, cool tanks with water spray. Runoff may create fire or explosion hazard. Fire residues and contaminated fire			
Hazardous combustion products	Containers may explode when heated. In the event of fire, cool tanks with water spray. Runoff may create fire or explosion hazard. Fire residues and contaminated fire			
Hazardous combustion products Special protective actions for fire-f	Containers may explode when heated. In the event of fire, cool tanks with water spray. Runoff may create fire or explosion hazard. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Oxides of carbon.			
	Containers may explode when heated. In the event of fire, cool tanks with water spray. Runoff may create fire or explosion hazard. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Oxides of carbon.			
Special protective actions for fire-f	Containers may explode when heated. In the event of fire, cool tanks with water spray. Runoff may create fire or explosion hazard. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Oxides of carbon. ighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout			
Special protective actions for fire-f Special protective equipment for fire-fighters	Containers may explode when heated. In the event of fire, cool tanks with water spray. Runoff may create fire or explosion hazard. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Oxides of carbon. ighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. 3Y			

Personal precautions

Avoid contact with skin, eyes, and clothing. Avoid breathing vapors or mists. Evacuate $% \left({{{\mathbf{x}}_{i}}} \right)$

	personnel to safe areas. Do not touch or walk through spilled material. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. All equipment used when handling the product must be grounded. Wash thoroughly after handling. Use personal protective equipment as required.		
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.		
For emergency responders	Shut off ignition sources. Clear area of all unprotected personnel. 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. See Section 12 for additional Ecological Information.		
Methods and material for containm	ent and cleaning up		
Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Remove ignition sources. Provide adequate ventilation. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.		
Methods for cleaning up	Slippery when spilt. Avoid accidents, clean up immediately. Take precautionary measures against static discharges. Use non-sparking tools. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.		

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Avoid contact with skin, eyes, and clothing. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Keep in an area equipped with sprinklers. Use personal protection equipment. Use according to package label instructions.		
General hygiene considerations	Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Wear suitable gloves and eye/face protection.		
Conditions for safe storage, includ	uding any incompatibilities		
Storage Conditions	Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not store near combustible materials. Keep in an area equipped with sprinklers. Keep in properly labelled containers. Protect from direct sunlight. Store in accordance with local regulations. Store away from incompatible materials described in Section 10.		
Incompatible materials	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. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected.

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.



Environmental exposure controls No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Color Odor Odor threshold

Property pH pH (as aqueous solution) Melting point / freezing point Boiling point / boiling range Flash point Evaporation rate Liquid No information available. Colourless Odourless No information available.

Values Not Applicable No data available -81 °C 176 - 192 °C 45 °C No data available

Remarks • Method

None known None known None known CC (closed cup) None known

Flammability (solid, gas) Flammability Limit in Air	No data available	None known None known
Upper flammability or explosive limits	4.0	
Lower flammability or explosive limits	0.5	
Vapor pressure	0.1 kPa @ 20°C	None known
Vapor density	5.9 (air=1)	None known
Relative density	0.747 @ 20°C	None known
Water solubility	No data available	None known
Solubility(ies)	Immiscible in water	None known
Partition coefficient	No data available	None known
Autoignition temperature	410 °C	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	No information available.
Chemical stability	
Stability	Stable under normal conditions.
Explosion data Sensitivity to mechanical impac	et None.
Sensitivity to static discharge	Yes.
Possibility of hazardous reactions	
Possibility of hazardous reactions	Heating can cause expansion or decomposition of the material, which can lead to the containers exploding.
Conditions to avoid	
Conditions to avoid	Heat, flames and sparks. Static discharge (electrostatic discharge). Avoid contact with combustible substances. Direct sunlight.
Incompatible materials	
Incompatible materials	Oxidizing agents.
Hazardous decomposition products	<u>S</u>

Hazardous decomposition products Oxides of carbon.

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	May cause irritation. Repeated exposure may cause skin dryness or cracking.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May be fatal if swallowed and enters airways. Aspiration may cause pulmonary edema and pneumonitis.
Symptoms	Aspiration risk: may cause lung damage if swallowed.

Numerical measures of toxicity - Product Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Heptane, 2,2,4,6,6-pentamethyl-	>5000 mg/kg (based on similar	-	-
	product(s))(1)		

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	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
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	May be fatal if swallowed and enters airways. Risk of serious damage to the lungs (by aspiration).

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity

May cause long lasting harmful effects to aquatic life. Keep out of waterways.

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
Heptane,	72hr IC50 (algae): >0.04	LC50: >2.8mg/L (96h,	-	48hr EC50 (Daphnia
2,2,4,6,6-pentamethyl-	mg/L (1)	Danio rerio)		magna): >0.04 mg/L (1)

Persistence and degradability

Persistence and degradability

Expected to have a low biodegradation rate.

Bioaccumulative potential	
Bioaccumulation	No information available.
M - L :!!:	
Mobility	
Mobility in soil	No information available.
Other adverse effects	

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. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

<u>ADG</u>

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

UN number	2286
Proper shipping name	PENTAMETHYLHEPTANE
Hazard class	3
Packing group	III
Hazchem code	3Y

<u>IATA</u>

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN number	2286
UN proper shipping name	PENTAMETHYLHEPTANE
Transport hazard class(es)	3
Packing group	III

IMDG

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN number	2286 PENTAMETHYI HEPTANE
UN proper shipping name	PENTAMETHYLHEPTANE
Transport hazard class(es)	3
Packing group	III
IMDG EMS Fire	F-E
IMDG EMS Spill	S-D
Marine pollutant	No

15. REGULATORY INFORMATION

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

National regulations

Australia

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

Major hazard (accident/incident planning) regulation Verify that license requirements are met

<u>Hazardous chemical</u> Liquids that meet the criteria for Class 3 Packing Group II or III Threshold quantity (T) 50 000

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

(1) Supplier Safety Data Sheet 09/2016

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

Issuing Date: 09-Aug-2022

Carcinogen

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

Revision Note:

С

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		
TŴA	TWA (time-weighted average)	STEL	STEL (Short T	
Ceiling	Maximum limit value	*	Skin designati	

STEL (Short Term Exposure Limit) Skin designation

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 Bronson & Jacobs 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.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris and Australian Botanical Products.

End of Safety Data Sheet