

Safety Data Sheet

Date of Issue: 10.09.2025

Date of Expiry: 10.09.2030

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name : ECP Limited
Address : PO Box 34125, Birkenhead, Auckland 0746
Telephone : +64 9 480 4386
Emergency phone number : 0800 243 622 (24 hours)

Other information

Product of Avantor Performance Materials, LLC, 100 Matsonford Rd, Suite 200, Radnor, PA 19087.

Product Name	Hexane
Product Code	H487 , 5189
CAS No.	110-54-3

Recommended use : Laboratory Investigations

2: Hazard's identification

Hazard Classification Physical Hazards

Health Hazards

Skin Corrosion/Irritation : Category 2
 Serious Eye Damage/Eye Irritation : Category 2B
 Toxic to reproduction : Category 2
 Specific Target Organ Toxicity - Single Exposure : Category 3.
 Specific Target Organ Toxicity - Repeated Exposure : Category 1.
 Aspiration Hazard Category : 1

Target Organs

1. Narcotic effect., Respiratory tract irritation.
2. Central nervous system, Peripheral nervous system

Unknown toxicity - Health

Acute toxicity, oral 0 %
 Acute toxicity, dermal 0 %
 Acute toxicity, inhalation, vapor 100 %
 Acute toxicity, inhalation, dust or mist 100 %

Environmental Hazards

Acute hazards to the aquatic environment : Category 2
 Chronic hazards to the aquatic environment : Category 2

Unknown toxicity - Environment

Acute hazards to the aquatic environment 0 %
 Chronic hazards to the aquatic environment 100 %

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word : **Danger**

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Hazard Statements

Highly flammable liquid and vapor.
 Causes skin irritation.
 Causes eye irritation.
 May cause respiratory irritation.
 May cause drowsiness or dizziness.
 Causes damage to organs through prolonged or repeated exposure.
 Suspected of damaging fertility or the unborn child.
 May be fatal if swallowed and enters airways.
 Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof [electrical/ventilating/lighting] equipment. Use non-sparking tools. Take action to prevent static discharges. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Obtain special instructions before use. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Avoid release to the environment.

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. In case of fire: Use water spray, foam, dry powder or carbon dioxide for extinction. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing. 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 INHALED: Remove person to fresh air and keep comfortable for breathing. Call a Label Elements POISON CENTER/doctor if you feel unwell. IF exposed or concerned: Get medical advice/attention.

Disposal

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC):

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3: Composition/information on ingredients

3.1 Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Hexane	110-54-3	90 - 100%
3-Methylpentane	96-1-0	0.1 - 1%
2,4-Dimethylpentane	108-08-7	0.1 - 1%

4: First aid measures

4.1 Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

Fresh air. Call in physician.

In case of skin contact

Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

Rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

Caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Symptoms may be delayed.

5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel

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Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

In case of leakage, eliminate all ignition sources. Take precautionary measures against static discharges. Stop leak if possible without any risk. Use non-sparking tools. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

6.4 Reference to other sections

For disposal see section 13.

7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons. Recommended storage temperature see product label.

Storage class

Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Component	CAS No.	Value	Control parameters	Basis
n-Hexane	110-54-3	WES-TWA	20 ppm 72 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
	Remarks	Ototoxin		

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		Exposure can also be estimated by biological monitoring
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8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

Face shield and safety glasses.

Skin protection

Chemical resistant gloves.

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	Liquid
Form	:	Liquid
Color	:	Colorless
Odor	:	Slight odor
Odor threshold	:	No data available.
pH	:	No data available.
Melting point/freezing point	:	-95 °C
Initial boiling point and boiling range	:	68 °C
Flash Point	:	-23 °C
Evaporation rate	:	9 (butyl acetate=1)
Flammability (solid, gas)	:	No data available.
Upper/lower limit on flammability or explosive limits		
Flammability limit - upper (%)	:	7.7 %(V) (Hexane)
Flammability limit - lower (%)	:	1.2 %(V) (Hexane)
Explosive limit - upper (%)	:	No data available.
Explosive limit - lower (%)	:	No data available.
Vapor pressure	:	20.2 kPa (25 °C)
Vapor density	:	3 (Air=1)
Density	:	0.66 g/ml (20 °C)
Relative density	:	0.66 (20 °C)
Solubility(ies)		
Solubility in water	:	Insoluble
Solubility (other)	:	No data available.
Partition coefficient (n-octanol/water):		No data available.

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Auto-ignition temperature : 224 °C (Hexane)
Decomposition temperature : No data available.
Viscosity : No data available.

Other information

Molecular weight : 86.18 g/mol

10: Stability and reactivity

10.1 Reactivity

Vapors may form explosive mixture with air.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Heat, sparks, flames. Contact with incompatible materials.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Thermal decomposition may release oxides of carbon.
In the event of fire: see section 5

11: Toxicological information

11.1 General information

May cause drowsiness or dizziness.

Information on likely routes of exposure

Inhalation

May cause irritation to the mucous membranes and upper respiratory tract.
Irritating to respiratory system.

Skin Contact

Causes skin irritation.

Eye contact

None known or expected under normal use.

Ingestion

May be fatal if swallowed. May cause irritation of the gastrointestinal tract.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: No data available.

Dermal

Product: ATEmix (Rabbit) 3,000 mg/kg



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Inhalation

Product: No data available.

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: Causes skin irritation.

Serious Eye Damage/Eye Irritation

Product: Causes eye irritation.

Respiratory or Skin Sensitization

Product: Not a skin sensitizer.

Carcinogenicity

Product: This substance has no evidence of carcinogenic properties.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No mutagenic components identified

In vivo

Product: No mutagenic components identified

Reproductive toxicity

Product: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: Narcotic effect. Respiratory tract irritation.

Specific Target Organ Toxicity - Repeated Exposure

Product: Central nervous system. Peripheral nervous system

Target Organs

Specific Target Organ Toxicity - Single Exposure:

Narcotic effect., Respiratory tract irritation.

Specific Target Organ Toxicity - Repeated Exposure:

Central nervous system, Peripheral nervous system

Aspiration Hazard

Product: May be fatal if swallowed and enters airways.

Other effects

Can cause adverse reproductive effects - such as birth defects, miscarriages, or infertility.

12: Ecological information**12.1 Ecotoxicity:****Acute hazards to the aquatic environment**

Fish

Product: No data available.

Specified substance(s):

Hexane

LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 2.101 - 2.981 mg/l LC 50*Pimephales promelas*, 96 h): 2.5 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Hexane

EC 50 (*Daphnia magna*, 48 h): 21.85 - 31.9 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: The product is not expected to be biodegradable.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Hexane Log Kow: 3.90

3-Methylpentane Log Kow: 3.60

Mobility in soil:

The product is insoluble in water and will spread on the water surface.

Other adverse effects

Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the environment.

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13: Disposal considerations

General information

This product is highly flammable. Don't use fire to cut empty container after Use.

Disposal instructions

Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.

Contaminated Packaging

Since emptied containers retain product residue, follow label warnings even after container is emptied.

14: Transport Information Table

		ADR/RID – Land	IMDG- Sea	IATA – DGR- Air
14.1	UN Number	1208	1208	1208
14.2	UN Proper Shipping name	HEXANES	HEXANES	Hexanes
14.3	Transport Hazard Class	3	3	3
14.4	Packaging group	II	II	II
14.5	Environmental Hazards	Yes	Yes	yes
14.6	Special precautions for user	Not determined		

Other regulations

Hazchem Code : 3YE

15: Regulatory information

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

National regulatory information

HSNO Approval Code: HSR001166

Tracking Required: not required

Approved Handler Cert.: not required

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous



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goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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