Safety Data Sheet

HEXANE FRACTION

1. Identification

GHS Product Identifier
CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

Company Name

Address
38 - 50 Bedford Street GILLMAN
SA 5013  Australia

Telephone/Fax Number
Tel: (08) 8440-2000
Fax: (08) 8440-2001

Recommended use of the chemical and restrictions on use
Solvent for adhesive manufacturer and oil seed extraction.

Name
HEXANE FRACTION

Product Code
HT018

HEXANE FRACTION AR

HA018

Other Names

Other Information
EMERGENCY CONTACT NUMBER:      +61 08 8440 2000
Business hours: 8:30am to 5:00pm, Monday to Friday.

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
Aspiration Hazard: Category 2
Flammable Liquids: Category 1
Specific target organ toxicity - Repeated Exposure Category 2
Skin Corrosion/Irritation: Category 2
Specific target organ toxicity - Single Exposure Category 3
Toxic to Reproduction: Category 2

Signal Word (s)
DANGER

Hazard Statement
(s)
H224 Extremely flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs lungs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Pictogram (s)
Flame, Health hazard, Exclamation mark, Environment

Precautionary statement –

Prevention
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
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Product Name :  HEXANE FRACTION

Classified as hazardous

Precautionary statement – Response

P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Swallowed
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

Skin
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

Inhaled
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Inhalation
Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. Give water to drink. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Ingestion
Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical advice if effects persist. Clothing wet with product should be soaked with water before removing to prevent the possibility of ignition by static discharges.

Skin
Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.

Eye contact
Maintain eyewash fountain and safety shower in work area.

First Aid Facilities
Treat symptomatically based on judgement of doctor and individual reactions of the patient.

Advice to Doctor
For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

Other Information

5. Fire-fighting measures

Specific Methods
Caution: Use of water spray when fighting fire may be inefficient.
Small fire: Use foam, dry chemical, CO2 or water spray.
Large fire: Use foam, fog or water spray - Do not use water jets.

Specific hazards arising from the chemical
HIGHLY FLAMMABLE: Product has a low flash point - Will be easily ignited by heat, sparks or flames at ambient temperatures. Vapour will form explosive mixtures with air. Vapour will travel to source of ignition and flash back. Fire may produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Liquid is lighter than water. Vapour is heavier than air and will collect in low or confined areas (drains, basements, tanks). Vapours from run-off may create an explosion hazard.

Hazchem Code
3YE

Precautions in connection with Fire
SCBA and structural firefighter's uniform may provide limited protection. Fully-encapsulating, gas-tight suits should be worn for maximum protection.
6. Accidental release measures

Spills & Disposal
- ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50m. All equipment used in handling the product must be earthed.
- Do not touch or walk through spilled material.
- Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas.
- Vapour-suppressing foam may be used to control vapours.
- Absorb spill with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect material and place it in loosely-covered metal or plastic containers for later disposal. Water spray may be used to knock down or divert vapour clouds.
- SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

Personal Precautions
- Evacuate the area of all non-essential personnel. Avoid inhalation, contact with skin, eyes and clothing.

Clean-up Methods - Spills & Disposal
- Absorb or contain liquid with sand, earth or spill control material. Shovel up using non-sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.
- Water spray may be used to knock down or divert vapour clouds.
- Seek expert advice on handling and disposal.

7. Handling and storage

Precautions for Safe Handling
- Do not breathe vapour. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Take precautionary measures against static discharges. All electrical equipment must be flameproofed. Avoid generation of vapours/aerosols. Work under hood.

Conditions for safe storage, including any incompatibilities
- Store away from oxidizing agents. Keep container tightly closed in a dry, well-ventilated place away from direct sunlight and other sources of heat or ignition. Store at room temperature (15 - 25 °C). Store away from foodstuffs. Store small containers in suitable flammable liquid storage cabinets. Larger drums (200L) must be kept in purpose-built stores.

Storage Regulations

8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Occupational exposure limit values</th>
<th>Name</th>
<th>STEL</th>
<th>TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>mg/m³</td>
<td>ppm</td>
<td>mg/m³</td>
<td>ppm</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>72</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

Other Exposure Information
- A time weighted average (TWA) has been established for n-hexane (Safe Work Australia) of 72 mg/m³, (20 ppm). The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
- A time weighted average (TWA) has been established for hexane, mixed isomers (Safe Work Australia) of 1,760 mg/m³, (500 ppm). The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
- A short term exposure limit (STEL) has been established for hexane, other isomers (Safe Work Australia) of 3,500 mg/m³, (1000 ppm). The exposure value at the STEL is the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

Appropriate engineering controls
- In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Respiratory Protection
- Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

Eye Protection
- The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.

Hand Protection
- Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
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Personal Protective Equipment

- Maintenance. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
- Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.

Footwear

- Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection

- Flame retardant protective clothing. Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hygiene Measures

- Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

- Form: Liquid
- Appearance: Clear, colourless, water-white, mobile liquid.
- Odour: Typical paraffinic odour.
- Melting Point: -94 °C
- Boiling Point: IBP: 62.00 °C, FBP: 68.00 °C.
- Solubility in Water: Immiscible with water.
- Specific Gravity: 0.67 @ 15 °C
- pH: Neutral.
- Vapour Pressure: 16.60 kPa @ 15 °C
- Vapour Density (Air=1): 2.79 @ 15 °C
- Evaporation Rate: 8.40
- Odour Threshold: 64 - 244 ppm.
- Viscosity: 0.326 mPa, 20 °C.
- Volatile Component: 100%
- Partition Coefficient: Log P (o/w): 4.11
- Flash Point: -22 °C (Open cup).
- Flammability: Highly flammable.
- Auto-Ignition Temperature: 240 °C
- Flammable Limits - Lower: 1.2% v/v
- Flammable Limits - Upper: 7.5% v/v
- Molecular Weight: 86.18

10. Stability and reactivity

- Chemical Stability: Stable under ordinary conditions of use and storage. Heat will contribute to instability.
- Conditions to Avoid: Heat, flames, ignition sources and incompatibles.
- Incompatible Materials: Oxidising agents, halogens, combustible materials.
- Possibility of hazardous reactions: Explosive when mixed with oxidising agents.
11. Toxicological Information

Toxicology Information

Acute Toxicity - Oral
LD50 (rat): 28710 mg/kg.

Acute Toxicity - Dermal
LD50 (rabbit): >2000 mg/kg.

Acute Toxicity - Inhalation
LC50 (rat): 171.6 mg/l /4 h.

Ingestion
Harmful, may cause lung damage if swallowed. Moderately toxic. May cause gastrointestinal irritation, nausea, vomiting, cramping, CNS depression, headache, anaesthesia and coma. Tends to break up into a foam if the patient vomits. Upon aspiration into the lungs, chemical pneumonitis may develop.

Inhalation
Harmful: danger of serious damage to health by prolonged exposure through inhalation. May cause headache, dizziness and CNS depression. Irritating to respiratory system. Prolonged exposure may cause somnolence and narcosis.

Skin
Irritating to skin.

Eye
Irritating to eyes. Risk of corneal clouding.

Carcinogenicity
Not listed in the IARC Monographs.

Reproductive Toxicity
Subacute to chronic toxicity. An embryotoxic effect need not be feared when the threshold limit value is observed. Animal experiments suggest that the substance may lead to an impairment of reproductive performance also in man.

Chronic Effects
Repeated inhalation or skin exposure to n-Hexane has been noted to cause peripheral neuropathy in exposed individuals. Both sensory and motor nerve damage has been documented with long-term exposures of greater than 500 ppm. Cessation of exposure is not immediately followed by improvement and symptoms may even progress for two to three months. Final recovery may take more than one year depending on the severity of the intoxication, and may not always be complete. Concurrent exposure to n-Hexane and Methyl ethyl ketone (MEK) will accelerate the appearance of damage due to n-Hexane, although MEK alone will not cause the effect. Other isomers of hexane do not cause nerve damage. Repeated or prolonged skin contact may cause chronic dermatitis.

Serious eye damage/irritation
Rabbit: Slight irritation.

Mutagenicity
No evidence of mutagenic effects.

12. Ecological information

Ecotoxicity
May cause long-term adverse effects in the aquatic environment. Toxic for aquatic organisms.
Nonmiscible with water. Substance floats on the water surface.

Persistence and degradability
BOD: 2.21 g/g. COD: 0.04 g/g. TOD: 3.52 g/g.

Environmental Fate
Behaviour in environmental compartments: Distribution: Log P(o/w): 4.11

Bioaccumulative Potential
Concentration in organisms possible. BCF: 242-453.

Other Precautions
An appreciable bioaccumulation potential is to be expected (log P(o/w) >3).

Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Disposal Considerations
Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information
Dangerous Goods of Class 3 Flammable Liquids, are incompatible in a placard load with any of the following: - Class 1, Class 2.1, if both the Class 3 and Class 2.1, dangerous goods are in bulk, Class 2.3, Class 4.2, Class 5, Class 6, if the Class 3 dangerous goods are nitromethane and Class 7.

U.N. Number
1208
**HEXANE FRACTION**

**UN proper shipping name**
HEXANES

**Transport hazard class(es)**
3

**Hazchem Code**
3YE

**Packaging Method**
3.8.3

**Packing Group**
II

**EPG Number**
3A1

**IERG Number**
14

### 15. Regulatory Information

**Regulatory Information**
Listed in the Australian Inventory of Chemical Substances (AICS).

**Poisons Schedule**
S5

### 16. Other Information

**Literature References**
- Standard for the Uniform Scheduling of Medicines and Poisons No. 6', Commonwealth of Australia, February 2015.
- Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.
- Safe Work Australia, 'Hazardous Substances Information System, 2005'.
- Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.

**Contact Person/Point**
Paul McCarthy Ph. (08) 8440 2000

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