



Safety Data Sheet

HEXANE

Infosafe No. ACOD4 **Version** 2.0 **ISSUED** 8/03/2013 **Status** ISSUED
No. **Date** by
NUPLEXIN

1. Identification

GHS Product Identifier

HEXANE

Product Code

87004

Company Name

NUPLEX SPECIALTIES a division of Nuplex Industries (Aust) Pty Ltd (ABN 25 000 045 572)

Address

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NEW ZEALAND

Telephone/Fax Number

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Emergency phone number

Australia: 1800 022 037 (24H)
New Zealand: 0800 154 666 (24H)

E-mail Address

compliance@nuplex.com.au

Recommended use of the chemical and restrictions on use

Solvent

2. Hazard Identification

GHS classification of the substance/mixture

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.

Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.

3.1B Flammable liquid: high hazard

6.1E (Aspiration hazard 1) - Substance that is acutely toxic

6.3B Substance that is mildly irritating to the skin

6.4A Substance that is irritating to the eyes

6.9A (Repeated exposure) - Substance that is toxic to human target organs or systems

9.1B Substance that is ecotoxic in the aquatic environment

Signal Word (s)

Danger

Hazard Statement (s)

H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.
 H316 Causes mild skin irritation.
 H319 Causes serious eye irritation.
 H372 Causes damage to organs through prolonged or repeated exposure by inhalation .
 H411 Toxic to aquatic life with long lasting effects.

Pictogram (s)

Flame, Environment, Health hazard, Exclamation mark



Precautionary statement - Prevention

P102 Keep out of reach of children.
 P103 Read label before use.
 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.
 P264 Wash contaminated skin thoroughly after handling
 P270 Do not eat, drink or smoke when using this product.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement - Response

GENERAL

P101 If medical advice is needed, have product container or label at hand.
 P370+P378 In case of fire: Use carbon dioxide, dry chemical or foam. for extinction.
 P314 Get medical advice/attention if you feel unwell.
 P391 Collect spillage.

INGESTION

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P330 Rinse mouth.
 P331 Do NOT induce vomiting.

EYES

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 If eye irritation persists: Get medical advice/attention.

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.

Precautionary statement - Storage

P403+P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.

Precautionary statement - Disposal

P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

3. Composition/information on ingredients

Ingredients

Name	CAS	EINECS	Proportion
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Hexane

110-54-3

203-777-6

100 %

4. First-aid measures

Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth and lips with water. Where vomiting occurs naturally have affected person place head below hip level in order to reduce risk of aspiration. Seek immediate medical attention.

Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

Eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

First Aid Facilities

Eyewash, safety shower and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (0800 764 766)

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide, dry chemical or foam.

Unsuitable Extinguishing Media

Do not use water jet.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide.

Specific hazards arising from the chemical

Flammable liquid and vapour. Shut off any leak if safe to do so and remove sources of re-ignition. Flashback along the vapour trail may occur. Vapour/air mixtures may ignite explosively. Runoff to sewer may create fire or explosion hazard.

Hazchem Code

3YE

Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

6. Accidental release measures

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. Handling and storage

Precautions for Safe Handling

Avoid contact with skin and eyes. Wear overalls, impervious gloves and safety glasses. Use in designated areas with local exhaust ventilation, away from sparks, flames and other ignition sources. Use approved flammable liquid storage containers in the work area. Prevent release of vapours and mists into workplace air. Keep containers tightly closed. Take precautionary measures against static discharges. Do not empty into drains. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands before eating, drinking, smoking or using the toilet facilities.

Conditions for safe storage, including any incompatibilities

Flammable liquid. Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

8. Exposure controls/personal protection

Occupational exposure limit values

Substance	Regulations	Exposure Duration	Exposure Limit	Units	Notes
Hexane	NZ OELs List	TWA	20	ppm	
	NZ OELs List	TWA	72	mg/m3	

Biological Limit Values

Name:n-hexane

Determinant:2,5-Hexanedion without hydrolysis

Value:0.4 mg/L

Specimen:urine

Sampling time:End of shift at end of work week.

Source: American Conference of Industrial Hygienists (ACGIH)

Appropriate engineering controls

Provide sufficient ventilation to keep airborne levels below the exposure limits or as low as possible. This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. A flame-proof exhaust ventilation system is required. If the engineering controls are not sufficient to

maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn. Refer to relevant regulations for further information concerning ventilation requirements.

Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 60079.10.1:2009 Explosive atmospheres - Classification of areas - Explosive gas atmospheres, for further information concerning ventilation requirements.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Final choice will vary according to individual circumstances.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as laminated film, nitrile rubber. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled. Wear safety footwear. Final choice will vary according to individual circumstances.

9. Physical and chemical properties

Form

Liquid

Appearance

Clear colourless liquid

Colour

Colourless

Odour

Paraffinic odour

Decomposition Temperature

Not available

Melting Point

Not available

Boiling Point

62-69°C (760 mm Hg)

Solubility in Water

Immiscible

Specific Gravity

0.67 (15°C)

pH

Not available

Vapour Pressure

16.60 kPa (15°C)

Vapour Density (Air=1)

2.86 (15°C)

Evaporation Rate

8.40

Odour Threshold

Not available

Viscosity

Refer to Section 9: Kinematic Viscosity and Dynamic Viscosity

Volatile Component

100%

Partition Coefficient: n-octanol/water

Not available

Flash Point

<-30°C

Flammability

Highly flammable liquid and vapour.

Auto-Ignition Temperature

225°C

Flammable Limits - Lower

1.2% v/v

Flammable Limits - Upper

7.5% v/v

Kinematic Viscosity

Not available

Dynamic Viscosity

Not available

10. Stability and reactivity

Reactivity

Refer to Section 10: Possibility of hazardous reactions

Chemical Stability

Stable under normal conditions of storage and handling.

Conditions to Avoid

Heat, open flames and other sources of ignition. Prevent the build up of mists or vapours in the work atmosphere.

Incompatible Materials

Strong oxidising agents.

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes including

carbon dioxide and carbon monoxide.

Possibility of hazardous reactions

Reacts with oxidising agents.

Hazardous Polymerization

Will not occur.

11. Toxicological Information

Toxicology Information

Toxicity data for material given below.

Acute Toxicity - Oral

LD50 (rat): 25,000 mg/kg

Acute Toxicity - Inhalation

LC50 (rat): 48,000 ppm/4h

Ingestion

Harmful: may cause lung damage if swallowed. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause pulmonary injury. Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation

Inhalation of vapours or mists may cause irritation to the respiratory system. May cause drowsiness or dizziness.

Skin

Causes skin irritation. Skin contact will cause redness, itching and swelling. Prolonged or repeated skin contact may cause defatting leading to dermatitis.

Eye

Causes serious eye damage. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Respiratory sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure by inhalation .

Aspiration Hazard

May be fatal if swallowed and enters airways.

12. Ecological information

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Persistence and degradability

Not available

Mobility

Not available

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

13. Disposal considerations

Disposal Considerations

Dispose of waste according to applicable local and national regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld on or near containers. Empty containers may contain flammable residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers. Advise flammable nature.

Product Disposal:

Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. In this specific case the product is a solvent-based, flammable substance and therefore can be sent to an approved high temperature incineration plant for disposal. Large volumes may be re-distilled by solvent recovery contractors.

Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected. In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Further details regarding disposal can be obtained on the EPA New Zealand website under specific group standards.

Container Disposal:

The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service. Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous.

14. Transport information

Transport Information

This product is classified as Dangerous Goods Class 3 Flammable Liquids

Must not be loaded in the same freight container or on the same vehicle with:

Class 1: Explosives

Division 2.1: Flammable gases

Division 2.3: Toxic gases

Division 4.2: Spontaneously combustible substances

Division 5.1: Oxidising substances

Division 5.2: Organic peroxides

Class 7: Radioactive materials unless specifically exempted

Must not be loaded in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

Division 4.3: Dangerous when wet substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

Division 4.2: Spontaneously combustible substances

Division 4.3: Dangerous when wet substances

Division 5.1: Oxidising substances

Division 5.2: Organic peroxides

U.N. Number

1208

UN proper shipping name

HEXANES

Transport hazard class(es)

3

Packing Group

II

Hazchem Code

3YE

U.N. Number

1208

UN proper shipping name

HEXANES

Transport hazard class(es)

3

Packing Group

II

Hazchem Code

3YE

IERG Number

14

UN Number (Air Transport, ICAO)

1208

IATA/ICAO Proper Shipping Name

HEXANES

IATA/ICAO Hazard Class

3

IATA/ICAO Packing Group

II

IATA/ICAO Symbol

Flammable liquid.

IMDG UN No

1208

IMDG Proper Shipping Name

HEXANES

IMDG Hazard Class

3

IMDG Pack. Group

II

IMDG Marine Pollutant

No

IMDG EMS

F-E, S-D

15. Regulatory information

Regulatory Information

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.

HSNO (CCID) Name: n-hexane

HSNO Approval Number

HSR001166

16. Other Information

Date of preparation or last revision of SDS

SDS Reviewed: March 2013, Supersedes: April 2008

Literature References

Workplace Exposure Standards and Biological Exposure Indices, Department of Labour, Health & Safety.

Transport of Dangerous goods on land NZS 5433.

Preparation of Safety Data Sheets - Approved Code of Practice Under the HSNO Act 1996 (HSNO CoP 8-1 09-06).

Assigning a hazardous substance to a group standard.

American Conference of Industrial Hygienists (ACGIH)

Contact Person/Point

IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the supplier listed in section 1 of the SDS. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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Technical Contact Numbers

For further information ask for: For specialist advice in emergencies: 0800 154 666

End of SDS

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