SDS 2643 Hexane Date of Issue/re-issue**: 01.08.2018**

User declaration:- I have read and understood this Safety Data Sheet

Name:-_____Signature_____Date_____

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP LTD**

Address: 39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel: NZ 0800154666	**Tel** +64 9 480 4386	**FAX** +64 9 480 4385

Product	**Hexane**		**Code**	**2643**
CAS#	**HSNO#**	**UN #**	**DG Class/es**	**Packing group #**
110-54-3	HSR001166	1208	3	II

Recommended use: Laboratory Investigations

2. Hazards Identification

2.1 GHS Classification

Flammable Liquids (Category B)
Acute toxicity, Oral (Category E)
Skin irritation (Category A)
Eye irritation (Category A)
Toxic to Reproduction (Category B)
Specific Target Organ Toxicity (Category B)
Aquatic toxicity (Acute or Chronic) (Category D)

2.2 GHS Label elements, including precautionary statements

Pictogram  Signal word Danger

Hazard statement(s)
H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H320 Causes eye irritation.
H361 Suspected of damaging fertility or the unborn child.
H371 May cause damage to organs.
H401 Toxic to aquatic life.
Precautionary statement(s)
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.
P264 Wash 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.
Response
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician.
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards - none

Hazard Classification

New Zealand:
Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Not classified as Dangerous Goods for transport, according to the New Zealand Standard NZS 5433:1999 Transport of Dangerous Goods on Land.
HSNO Classification:
3.1B - Flammable Liquid: High Hazard.
6.1E - Substance that is acutely toxic if swallowed.
6.3B - Substance that is mildly irritating to the skin.
6.4A - Substance that is irritating to the eye.
6.9A - Substance that is toxic to human target organs or systems.
9.1B - Substance that is ecotoxic in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Hexane	110-54-3	100 %

4. FIRST AID MEASURES

Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Seek immediate medical attention.

Ingestion Do NOT induce vomiting. Wash out mouth with water. Where vomiting occurs naturally have victim place head below hip level in order to reduce risk of aspiration. Seek immediate medical attention.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Ensure contaminated clothing is washed before re-use or discard. If irritation develops, seek medical attention.

Eye If in eyes, hold eyelids apart and flush the eyes immediately with running water. Continue flushing for several minutes until all contaminants are washed off completely. Seek medical attention.

First Aid Facilities Eye wash fountain, safety shower and normal wash room facilities.

Advice to Doctor Treat symptomatically.

Other Information For advice, contact a Poisons Information Centre (Phone Australia 13 1126; New Zealand 0800 764 766) or a doctor at once.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Use carbon dioxide, dry chemical powder or foam.

Hazards from Combustion Products Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.

Specific Hazards Highly flammable liquid. Vapour/air mixtures may ignite explosively. Precautions should be taken to eliminate the build up of explosive mixtures. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard. Heating can cause expansion or decomposition leading to violent rupture of containers.

Hazchem Code 3[Y]E

Precautions in connection with Fire Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Water may be used to cool containers to prevent pressure build-up or auto-ignition.
Warning: Burning liquid is lighter than water and will float spreading flames as water flows

from the site of the fire fighting efforts.

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. If necessary place inert absorbent onto material. Prevent run off into drains and waterways. Use clean non-sparking tools to collect the material and place into suitable, labelled containers. If contamination of sewers or waterways occurs inform the local water authorities and EPA in accordance with local regulations. Dispose of waste according to applicable local and national regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear appropriate protective clothing and equipment to prevent inhalation, skin and eye contact. Handle and use the material in a well-ventilated area, away from sparks, flames and other ignition sources. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Work from suitable, labelled, fire-resistant containers. Keep containers closed when not in use. Flameproof equipment is necessary in areas where the product is being used. Take precautionary measures against static discharges. Earth or bond all equipment. Do not empty into drains. Maintain a high level of personal hygiene when using the product, that is, always wash hands after handling, and before eating, drinking, smoking or using the toilet facilities.

Conditions for Safe Storage

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 and 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. 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. Reference should also be made to all applicable national and local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards:

Substance	TWA		STEL	
	ppm	mg/m³	ppm	mg/m³
n-Hexane	20	72	-	-

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week. STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

Biological Limit Values

No biological limit allocated.

Engineering Controls

Provide sufficient ventilation to keep airborne levels below the exposure limit. Where

	vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Refer to AS 1940 - The storage and handling of flammable and combustible liquids and AS/NZS 2430: Classification of hazardous areas - Examples of area classification - General, 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 organic vapour filter should be used. Reference should be made to Australian/New Zealand 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 or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear laminated film, nitrile or other suitable, impervious gloves conforming to AS/NZS 2161: Occupational protective gloves.
Body Protection	Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, colourless liquid with ta ypical paraffinic odour.
Odour	Paraffinic sweet
Melting Point	Not available
Boiling Point	62-69°C at 760 mmHg
Solubility in Water	Insoluble
Specific Gravity	0.67 at 15°C
pH Value	Not applicable
Vapour Pressure	16.60 kPa at 15°C
Vapour Density (Air=1)	2.86 at 15°C (Air=1)
Evaporation Rate	8.40 (n-Butyl acetate=1)
Volatile Component	100%
Flash Point	<-30 °C
Flammability	Highly flammable liquid.
Auto-Ignition Temperature	225°C

Flammable Limits - Lower	1.2 % v/v
Flammable Limits - Upper	7.50 % v/v

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions of handling and storage.
Conditions to Avoid	Heat, direct sunlight, open flames and other sources of ignition.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Thermal decomposition and combustion produce noxious fumes containing oxides of carbon.
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	LD50 (Oral, Rat): 25,000 mg/kg LC50 (Inhalation, Rat): 48,000 ppm/4h
Inhalation	Inhalation of product vapours may cause drowsiness, dizziness and irritation of the nose, throat and respiratory system.
Ingestion	Harmful, may cause lung damage if swallowed. It can cause central nervous system depression, severe abdominal pain, nausea and vomiting that may lead to pulmonary edema. Subsequent to ingestion or vomiting, small amounts of liquid aspirated into the respiratory system may cause severe lung damage or death.
Skin	Irritating to skin. Symptoms may include redness and itchiness. Repeated exposure may cause skin dryness and cracking, and may lead to dermatitis.
Eye	May cause irritation to eyes. Symptoms may include redness, tearing, stinging and blurred vision.
Chronic Effects	Possible risk of impaired fertility. Danger of serious damage to health by prolonged exposure through inhalation. Repeated inhalation or dermal exposure to n-hexane can cause peripheral neuropathy in exposed individuals. Recovery is not immediate on cessation of exposure, and the effects may progress for 2-3 months. Final recovery may take more than a year and may not necessarily be complete, depending on the severity of exposure. These effects are associated with n-hexane not the other hexane isomers. Concurrent exposure to n-hexane and methyl ethyl ketone (MEK) will accelerate the onset of n-hexane induced nerve damage, although MEK alone will not cause such damage. Prolonged and repeated skin contact may cause dermatitis due to defatting effect.

12. ECOLOGICAL INFORMATION

Ecotoxicity Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence / Degradability Not available

Mobility Not available

Bioaccumulative Potential Not available

Environment Protection Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations Dispose of waste according to federal, EPA and state 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 hazardous and dangerous residues. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed appropriately.

14. TRANSPORT INFORMATION

Transport Information New Zealand:
This material is classified as a Class 3 - Flammable Liquid according to NZS 5433:1999 Transport of Dangerous Goods on Land.
Must not be loaded in the same freight container or on the same vehicle with:
- Class 1, Explosives
- Class 2.1, Flammable gases
- Class 2.3, Toxic gases
- Class 4.2, Spontaneously combustible substances
- Class 5.1, Oxidising substances
- Class 5.2, Organic peroxides or
- Class 7, Radioactive materials unless specifically exempted.

Must not be loaded with 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:
- Class 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:
- Class 4.2, Spontaneously combustible substances
- Class 4.3, Dangerous when wet substances
- Class 5.1, Oxidising substances
- Class 5.2, Organic peroxides

U.N. Number 1208

Proper Shipping HEXANES

Name	
DG Class	3
Hazchem Code	3[Y]E
Packaging Method	3.8.3
Packing Group	II
EPG Number	3A1
IERG Number	14

15. REGULATORY INFORMATION

Regulatory Information	Australia: Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Classified as a Scheduled Poison S5 according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
Poisons Schedule	S5
National and or International Regulatory Information	New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. ERMA Approval Code: HSR001166; Hexane
Hazard Category	Harmful,Irritant,Highly Flammable,Dangerous for the environment
AICS (Australia)	All constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

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 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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