Tel (09) 273 3753
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22 Trugood Drive East
Tamaki Auckland 2013
PO Box 258 031
Botany Auckland 2163

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: **CYCLOHEXANONE**

Recommended Use: Solvent; paint remover, stain remover, degreaser, additive. Homogenizing agent, raw material for organic synthesis

Supplier: TMK Packers Ltd
Address: 22 Trugood Drive, East Tamaki, Auckland 2013
PO Box 258 031, Botany, Auckland 2163
Telephone: (+64) 9 273 3753
Facsimile: Website: www.tmkpackers.co.nz

Emergency phone: 0800 273327 (TMK Packers Ltd 24 Hr)
National Poisons Centre: 0800 POISON [0800 764 766]

2. HAZARDS IDENTIFICATION

Hazardous Nature:
This product is classified as hazardous under GHS (7th revised edition) in accordance with the New Zealand Hazardous Substances (Hazard Classification) Notice 2020.

GHS Classifications:
flammable liquids Category 3, acute oral toxicity Category 4, acute dermal toxicity Category 3, eye irritation Category 2

GHS Pictograms:

Signal word: **DANGER**

Hazard Statements:
H226: Flammable liquid and vapour.
H302: Harmful if swallowed
H311 Toxic in contact with skin.
H319: Causes serious eye irritation.

Prevention Statements:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat, open flames, hot surfaces. No smoking.
P233: Keep container tightly closed.
P240: Ground/bond containers and receiving equipment.
P241: Use explosion proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves and eye protection.

Response Statements:
P301 + P312: IF SWALLOWED: Call a POISON CENTER/physician if you feel unwell.
P302 + P352: IF ON SKIN: Wash with plenty of water.
P303 + P361 + P353: IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P312: Call a POISON CENTER/ physician if you feel unwell.
P330: Rinse mouth
P337 + P313: If eye irritation persists: Get medical advice/attention.
P361 + P364: Take off immediately all contaminated clothing and wash it before reuse.
P370 + P378: In case of fire: Use dry chemical, carbon dioxide or alcohol-resistant foam to extinguish.

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

Disposal Statements:
P501: Dispose of waste in accordance with Regional Authority or local council regulations.

3. COMPOSITION INFORMATION

Chemical Ingredient	CAS No.	Proportion (%)
Cyclohexanone	108-94-1	>99

4. FIRST AID MEASURES

Consult the National Poisons Centre, telephone 0800 764 766 [0800 POISON] or a doctor in every case of suspected poisoning. If medical advice is needed, have product container or label at hand.

INGESTION: Rinse mouth with water. Do NOT induce vomiting. Immediately call a Poison Centre or doctor for advice. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

INHALATION: Move person to fresh air and keep warm and at rest until recovered. Call a Poison Centre or doctor for advice if person feels unwell.

SKIN: Remove immediately all contaminated clothing. Wash affected area with plenty of water followed by soap and water.

EYES: Hold eyes open and rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do after the first 5 minutes. Continue rinsing for at least 15 minutes. Get medical attention if irritation persists.

NOTES TO PHYSICIAN: Treat symptomatically. If swallowed, consider gastric lavage with perfusion of activated charcoal.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:
Use dry chemical, carbon dioxide or alcohol-resistant foam. Use dry chemical powder, carbon dioxide, sand or earth for small fires only. Do NOT use water in a jet.

FIRE & EXPLOSION HAZARDS:
Will form explosive mixture with air at temperatures more than 44 0 C. In case of fire, avoid breathing smoke. Prevent extinguishing water from getting into the aquatic environment.

SPECIFIC HAZARDS:
Vapour is heavier than air, will spread across the ground and distant ignition is possible. Cool fire exposed containers by spraying with water.

FIRE-FIGHTING EQUIPMENT:
Wear self-contained breathing apparatus and personal protection clothing.

6. ACCIDENTAL RELEASE MEASURES

SPILLS:
Wear personal protective equipment. Avoid contact with skin and eyes. Flammable liquid. Vapor forms explosive mixture with air. Shut off leak if safe to do so. Remove or isolate ignition sources. Take precautions against static discharge. Bond or ground (earth) all equipment. Use non-sparking tools. Ventilate contaminated area. Isolate hazard area and keep unnecessary and unprotected people away from area. Stay upwind and keep out of low-lying areas. Contain spill. Avoid run off into drains or sewers. Do not contaminate watercourses or the ground. For large spills (more than a drum), recover liquid and transfer by mechanical means to labeled salvage tank that can be sealed for recovery or disposal of product. Do not flush away residues with water. Allow residues to evaporate. Remove any contaminated soil and dispose of safely by waste management company. For small spills, absorb with an appropriate material, e.g. vermiculite, earth or similar, and dispose of waste safely in a labelled sealed container for recovery or disposal. If contamination of drains, sewers or waterways occurs immediately notify Emergency Services (111).

DISPOSAL:
Dispose of contaminated waste or product to a solvent recycling facility or to an approved landfill in accordance with local regulations

7. HANDLING AND STORAGE

HANDLING:
Flammable liquid and vapours. Read label before use. Keep container closed when not in use. Use only in well-ventilated areas. No smoking. Avoid breathing vapors or direct contact with product. Wear personal protective equipment. Wash hands and exposed skin after handling. Remove ignition sources. Avoid sparks. Electrostatic charge may be generated during pumping with risk of fire. Restrict line viscosity to avoid generation of electrostatic discharge (< 1m/sec until fill pipe submerged to twice its diameter, then < 7 m/sec). Take precautions to use bonded or grounded (earthed) equipment. Do not use compressed air for filling, discharging or handling.

STORAGE:
Ensure all storage areas have adequate fire-fighting equipment. Store locked up in closed original container in a cool dry well-ventilated place, away from sunlight, ignition sources, heat, incompatible substances, aerosols, other flammables, oxidizing agents, and corrosives, out of reach of children, and away from food, drink and animal foodstuffs. Vapor heavier than air. Take precautions to avoid vapour accumulation in pits and confined spaces

Recommended materials: No information.

Unsuitable materials: Resins, rubbers, and corrosive to most plastics.

8. EXPOSURE CONTROLS: PERSONAL PROTECTION

EXPOSURE GUIDELINES: A NZ Workplace Exposure Standard (WES) has been set for this substance.

	WES-TWA
Cyclohexanone SKIN	25 ppm (100 mg/m3)

ENGINEERING CONTROLS: Use only in a well-ventilated area. Wear mask fitted with organic vapour cartridge as minimum for respiratory protection. Recommended respiratory protective equipment is to use positive pressure self-contained air-supplied breathing apparatus.

PERSONAL PROTECTIVE EQUIPMENT (PPE): Wear protective clothing. Safety shoes and boots need to be chemically resistant. Wear appropriate chemical resistant gloves, e.g. isobutylene-isoprene rubber, 4H, polyvinyl alcohol. Wear chemical goggles and/or full-face shield to protect eyes. Refer to the relevant AS/NZ standards for appropriate personal protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical value
Appearance:	Water white to light yellow oily liquid
Odour:	Acetone mint odour
Odour threshold:	0.12 – 100 ppm (with detection) 0.12 ppm (smell)
pH:	Neutral
Melting point/Freezing point(0 C):	-47
Boiling point/Boiling range (0 C):	155
Flash point (0 C):	44
Flammability (solid, gas):	Not applicable
Upper/lower flammability limits in air (%v/v):	1.1 - ~9.4
Vapour pressure (mmHg at 200 C):	4
Vapour density (air =1):	3.38
Relative density at 200 C, g/cc:	0.95
Solubility in water:	Slightly soluble (2.3 g/100ml water)
Partition coefficient: n-octanol/water:	0.81
Auto-ignition temperature (0 C):	420
Decomposition temperature (0 C):	Not available
Kinematic viscosity:	Not available
Volatile organic carbon content:	Not available
Evaporation rate (nBuAc =1):	0.29

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions of storage and use.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents, e.g. peroxide, nitric acid.

HAZARDOUS DECOMPOSITION PRODUCTS: Dependent on conditions under which decomposition occurs, harmful compounds (carbon dioxide, carbon monoxide) would be evolved.

HAZARDOUS POLYMERIZATION: Not known to occur

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:
This section includes possible adverse effects, which might occur if this product is not handled in the recommended manner.
ACUTE TOXICITY: Toxic if swallowed or absorbed through skin. Inhibits central nervous system. Symptoms include headache, nausea, faintness, drowsiness and confusion.

ASPIRATION HAZARD: Not classified with aspiration hazard. However, if product enters lungs it will cause swelling and bradypnea (abnormally slow breathing). It can cause heart to stop beating and therefore death.

RESPIRATORY IRRITATION: Symptoms may include coughing and shortness of breath. Inhalation of vapour at 50ppm causes throat irritation, 75 ppm concentration for 3 -5 minutes irritates nose and throat.

SKIN CORROSION/IRRITATION: May irritate skin with symptoms of redness, itching and pain. Toxic if absorbed through skin. Prolonged or repeated exposure may cause defatting of the skin which can lead to dermatitis.

SERIOUS EYE DAMAGE/IRRITATION: Serious irritant to eyes. Can cause permanent damage (corneal injury) or blindness at high concentrations.

RESPIRATORY OR SKIN SENSITISATION: Not classified for sensitization effects.

GERM CELL MUTAGENICITY: Not identified with mutagenic properties.

CARCINOGENICITY: Not identified as carcinogen.

REPRODUCTIVE TOXICITY: Not classified with adverse effects on fertility or the unborn child.

SPECIFIC ORGAN TOXICITY (REPEATED AND SINGLE EXPOSURE): May affect kidneys and liver. Causes central nervous system depression resulting in symptoms such as headaches, dizziness and nausea. Continued inhalation may result in unconsciousness and/or death.

NARCOTIC EFFECTS: Not classified for narcotic effects but inhalation may result in drowsiness and dizziness.

Toxicological data:
Oral, mouse LD50 1400 mg/kg b.w.
Dermal, rabbit LD50 948 mg/kg b.w.

Additional information: Not available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Product is toxic in the soil environment and harmful to terrestrial vertebrates.

PERSISTENCE AND BIODEGRADABILITY: Expected to rapidly biodegrade.

POTENTIAL FOR BIOACCUMULATION: No information.

MOBILITY IN SOIL: Product is slightly soluble in water. Wil slowly evaporate and biodegrade. May contaminate groundwater.

OTHER ADVERSE EFFECTS: Not available.

Ecotoxicological data:

Lactuca sativa (Dicotyledon plant)	EC50 (3d) 41.2 mg/L
	EC50 (14d) 8.24 mg/L , by calculation

13. DISPOSAL CONSIDERATIONS

DISPOSAL: Recover and recycle product whenever possible. Send clean dry drums to recycling facility or metal scrap reclaimer. Dispose of waste in accordance with Regional Authority or local council bylaws.

SPECIAL PRECAUTIONS: Ensure empty containers are vented and dry. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Do not use empty drums for storing other products.

14. TRANSPORT INFORMATION

UN Number:	1915
Shipping name:	CYCLOHEXANONE
Class:	3
Packing group:	III
HAZCHEM:	3Y
Marine Pollutant:	No

Dangerous Goods Segregation

This product is classified as a Dangerous Good Class 3.
Please consult NZS 5433:2020 Transport of Dangerous Goods on Land for information.

15. REGULATORY INFORMATION

Country/ Region: New Zealand
Inventory: NZIoC
Status: Listed

EPA New Zealand Approval Code: HSR001112; Cyclohexanone
HSNO Controls: Refer www.epa.govt.nz for information on Controls and any variations to Controls.

16. OTHER INFORMATION

Issue Number:	2
Date of Issue:	19th November 2025
Reasons for Issue:	Update GHS classifications
Replaces:	16th June 2023

Abbreviations:

ACGIH	American Conference of Governmental Industrial Hygienists
AS/NZS	Standards Australia & Standards New Zealand
BCF	Bioconcentration Factor
BEI	Biological Exposure Index
CAS	Chemical Abstracts Service

CCID	Chemical Classification and Information Database
CNS	Central Nervous System
EC No.	EC No - European Community Number
EC50	Effective Concentration, 50 per cent
EPA	Environmental Protection Authority
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HS 7	Globally Harmonised System of Classification and Labelling of Chemicals, 7th revised edition, 2017, published by the United Nations
HSNO	Hazardous Substances and New Organisms Act 1996
HSWA	Health and Safety at Work Act 2015
IARC	International Agency for Research on Cancer
IC50	Half Maximal Inhibitory Concentration
LC50	Lethal Concentration, 50 per cent
LD50	Lethal Dose, 50 per cent
LEL	Lower Explosive Limit
LOAEL	Lowest-observed-adverse-effect level
mg/m³	Milligrams per Cubic Metre
N/R	Not Regulated
NOAEL	No-observed-adverse-effect-level
NOEC	No Observed Effect Concentration
NZIoC	New Zealand Inventory of Chemicals
NZS 5433	New Zealand Standard Transport of Dangerous Goods on Land
OECD	Organisation for Economic Co-operation and Development
ppm	Parts Per Million
STEL	Short-Term-Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time-Weighted Average
UEL	Upper Explosive Limit
WES	Workplace Exposure Limit

References:
Supplier Material Safety Data Sheets
ERMA website: www.epa.govt.nz

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact TMK Packers Ltd.

END OF SAFETY DATA SHEET