

CYCLOHEXANE

GHS Safety Data Sheet

Version No:3

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

CYCLOHEXANE

OTHER NAMES

C6-H12, hexahydrobenzene, hexamethylene, hexanaphthene, hexahydrobenzene, "benzene hexahydride"

PROPER SHIPPING NAME

CYCLOHEXANE

PRODUCT USE

Solvent for lacquer, resins, cellulose ethers and fats. Paint and varnish remover. Used in the extraction of essentials oils; in the manufacture of adipic acid and benzene, cyclohexyl chloride, nitrocyclohexane, cyclohexanone.

Used in the manufacture of solid fuel for camp stoves; in the manufacture of nylon; in fungicidal preparations (possesses slight fungicidal action); in the recrystallisation of steroids.

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,

248, WORLI,

MUMBAI- 400030.INDIA.

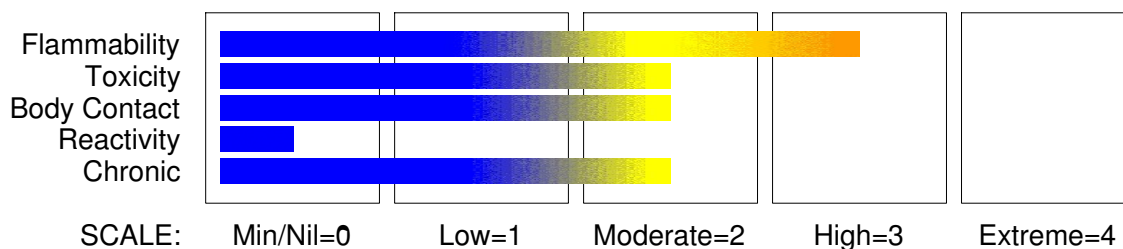
technical@sdfine.com

Telephone: 91- 22- 24959898

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HAZARD RATINGS



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Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity (Oral) Category 4
Chronic Aquatic Hazard Category 1
Flammable Liquid Category 2
Respiratory Irritation Category 3
Skin Corrosion/Irritation Category 2



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by using GHS criteria:

H335 H225 H302 H315 H410

May cause respiratory irritation

Highly flammable liquid and vapour

Harmful if swallowed

Causes skin irritation

Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS

Prevention

Use only non-sparking tools.

Take precautionary measures against static discharge

Use explosion-proof electrical/ventilating/lighting/equipment

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Ground/bond container and receiving equipment.

Wash thoroughly after handling.

Keep away from heat/sparks/open flame - No smoking.

Wear protective gloves and eye/face protection.

Keep container tightly closed.

Response

If skin irritation occurs, seek medical advice/attention.

Remove/Take off immediately all contaminated clothing

IF ON SKIN: Gently wash with plenty of soap and water.

Wash/Decontaminate removed clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

In case of fire, use foam for extinction.

If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with

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Section 2 - HAZARDS IDENTIFICATION

water/shower.

Specific treatment: refer to Label or MSDS.

Storage

Store locked up.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
cyclohexane	110-82-7	> 99

Section 4 - FIRST AID MEASURES

SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve

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Section 4 - FIRST AID MEASURES

resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology].

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

FIRE FIGHTING

Alert Fire Brigade and tell them location and nature of hazard.

- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).

Fight fire from a safe distance, with adequate cover.

If safe to do so, switch off electrical equipment until vapour fire hazard is removed.

Avoid spraying water onto liquid pools.

DO NOT approach containers suspected to be hot.

Cool fire exposed containers with water spray from a protected location.

If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
- Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Vapour forms an explosive mixture with air.
- Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
- Vapour may travel a considerable distance to source of ignition.

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Section 5 - FIRE FIGHTING MEASURES

- Heating may cause expansion / decomposition with violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).

May emit clouds of acrid smoke.

Other combustion products include:
carbon dioxide (CO₂).

FIRE INCOMPATIBILITY

Avoid contamination with strong oxidising agents as ignition may result.

Personal Protective Equipment

Gloves, boots (chemical resistant).

Breathing apparatus.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Wipe up.
- Collect residues in a flammable waste container.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Contain spill with sand, earth or vermiculite.
- Use only spark-free shovels and explosion proof equipment.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

cyclohexane 1300 ppm

irreversible or other serious effects or symptoms which could impair an individual's ability to take

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Section 6 - ACCIDENTAL RELEASE MEASURES

protective action is:
cyclohexane 1300 ppm

other than mild, transient adverse effects without perceiving a clearly defined odour is:
cyclohexane 900 ppm

The threshold concentration below which most people will experience no appreciable risk of health effects:
cyclohexane 300 ppm

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	$\geq 0.1\%$	Toxic (T)	$\geq 3.0\%$
R50	$\geq 0.25\%$	Corrosive (C)	$\geq 5.0\%$
R51	$\geq 2.5\%$		
else	$\geq 10\%$		

where percentage is percentage of ingredient found in the mixture

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+: May be stored together

O: May be stored together with specific preventions

X: Must not be stored together

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid generating and breathing mist and vapour.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights, heat or ignition sources.
- When handling, DO NOT eat, drink or smoke.
- Vapour may ignite on pumping or pouring due to static electricity.
- DO NOT use plastic buckets.
- Earth and secure metal containers when dispensing or pouring product.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- Keep containers securely sealed.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.

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Section 7 - HANDLING AND STORAGE

- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

SUITABLE CONTAINER

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers.

STORAGE REQUIREMENTS

- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- Keep containers securely sealed.
- Store away from incompatible materials in a cool, dry well ventilated area.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

- cyclohexane:

CAS:110- 82- 7

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
cyclohexane		1, 300 [LEL]

NOTES

Values marked LEL indicate that the IDLH was based on 10% of the lower explosive limit for safety considerations even though the relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations.

ODOUR SAFETY FACTOR (OSF)

OSF=4 (CYCLOHEXANE)

Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

		when distracted by working activities
B	26- 550	As " A" for 50- 90% of persons being distracted
C	1- 26	As " A" for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As " D" for less than 10% of persons aware of being tested

MATERIAL DATA

Odour Threshold Value: 784 ppm (detection)

NOTE: Detector tubes for cyclohexane, measuring in excess of 100 ppm are commercially available.

The recommended TLV-TWA represents the borderline of irritation but takes into account the practical difficulties of achieving lower values in the workplace. Whether serious or long-lasting consequences result from exposure at 300 ppm or whether humans become narcosed or fatigued remains to be established. The present value is thought to be a satisfactory bench-mark until further studies are made.

PERSONAL PROTECTION



EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

OTHER

- Overalls.
- Eyewash unit.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

" Forsberg Clothing Performance Index" .

The effect(s) of the following substance(s) are taken into account in the computer- generated selection: cyclohexane

Protective Material:

PE/EVAL/PE	A
VITON	A
NITRILE	A
TEFLON	A
NITRILE+PVC	A
PVA	B
HYPALON	C
NEOPRENE	C
PVC	C
BUTYL/NEOPRENE	C

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half- face Respirator	Full- Face Respirator
1000	10	AX- AUS	-
1000	50	-	AX- AUS
5000	50	Airline *	-
5000	100	-	AX- 2
10000	100	-	AX- 3
	100+		Airline**

* - Continuous Flow

** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

For further information consult your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

CARE: Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur, could require increased

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ventilation and/or protective gear.

Use in a well-ventilated area or Local exhaust ventilation may be required for safe working, i.e. to keep exposures below required standards, otherwise PPE is required.

If inhalation risk of overexposure exists, wear SAA approved organic-vapour respirator.

Correct respirator fit is essential to obtain adequate protection.

In confined spaces where there is inadequate ventilation, wear full-face air supplied breathing apparatus.

Provide adequate ventilation in warehouse or closed storage areas.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Colourless, highly flammable liquid with sweetish odour when pure, pungent odour when impure. Practically insoluble in water, miscible with ethanol, ethyl ether, acetone, benzene and carbon tetrachloride.

PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Floats on water.

Molecular Weight: 84.18

Melting Range (°C): 6.47

Solubility in water (g/L): Immiscible

pH (1% solution): Not applicable.

Volatile Component (%vol): 100

Relative Vapour Density (air=1): 2.90

Lower Explosive Limit (%): 1.3

Autoignition Temp (°C): 245

State: Liquid

Boiling Range (°C): 80.7- 81

Specific Gravity (water=1): 0.774

pH (as supplied): Not applicable

Vapour Pressure (kPa): 13.3 @ 25.5C

Evaporation Rate: Not available

Flash Point (°C): - 18.3

Upper Explosive Limit (%): 8.4

Decomposition Temp (°C): Not available

Viscosity: Not available

log Kow (Prager 1995): 3.18

log Kow (Sangster 1997): 3.44

log Kow: 3.44

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

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Section 11 - TOXICOLOGICAL INFORMATION

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be damaging to the health of the individual. Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce considerable gastrointestinal discomfort and may be harmful or toxic if swallowed. Ingestion may result in nausea, pain and vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.

EYE

Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
if exposure is prolonged.

SKIN

Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.

Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.

Bare unprotected skin should not be exposed to this material.

The material may accentuate any pre-existing skin condition.

INHALED

Inhalation may produce health damage*.

Limited evidence exists, or practical experience predicts, that the material produces irritation of the respiratory system in a significant number of individuals following inhalation.

Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. Vapour is heavier than air and may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.

Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination.

If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

In general, the alicyclic hydrocarbons produce less discomfort than the corresponding aromatic compounds.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by inhalation of vapour and skin contact/absorption.

No human exposure data available. For this reason health effects described are based on experience with chemically related materials.

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Section 11 - TOXICOLOGICAL INFORMATION

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS].
Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following.

TOXICITY AND IRRITATION

TOXICITY

Oral (rat) LD50: 12705 mg/kg
Bacteria mutagen

IRRITATION

Skin(rabbit): 1548 mg/48hr - Mild

Section 12 - ECOLOGICAL INFORMATION

Fish LC50 (96hr.) (mg/l):	93- 117
BCF<100:	242
log Kow (Prager 1995):	3.18
log Kow (Sangster 1997):	3.44
Half- life Soil - High (hours):	4320
Half- life Soil - Low (hours):	672
Half- life Air - High (hours):	87
Half- life Air - Low (hours):	8.7
Half- life Surface water - High (hours):	4320
Half- life Surface water - Low (hours):	672
Half- life Ground water - High (hours):	8640
Half- life Ground water - Low (hours):	1344
Aqueous biodegradation - Aerobic - High (hours):	4032
Aqueous biodegradation - Aerobic - Low (hours):	672
Aqueous biodegradation - Anaerobic - High (hours):	16128
Aqueous biodegradation - Anaerobic - Low (hours):	2688
Photooxidation half- life water - High (hours):	6.90E+10
Photooxidation half- life water - Low (hours):	1.40E+09
Photooxidation half- life air - High (hours):	87
Photooxidation half- life air - Low (hours):	8.7

The lower molecular weight hydrocarbons are expected to form a "slick" on the surface of waters after release in calm sea conditions. This is expected to evaporate and enter the atmosphere where it will be degraded through reaction with hydroxy radicals.

Some of the material will become associated with benthic sediments, and it is likely to be spread over a fairly wide area of sea floor. Marine sediments may be either aerobic or anaerobic. The material, in probability, is biodegradable, under aerobic conditions (isomerised olefins and alkenes show variable results). Evidence also suggests that the hydrocarbons may be degradable under anaerobic conditions although such degradation in benthic sediments may be a relatively slow process.

Under aerobic conditions the material will degrade to water and carbon dioxide, while under anaerobic processes it will produce water, methane and carbon dioxide.

Based on test results, as well as theoretical considerations, the potential for bioaccumulation may be high. Toxic effects are often observed in species such as blue mussel, daphnia, freshwater green algae, marine copepods and amphipods.

log Kow: 3.44

Koc: 480

Half-life (hr) air: 6-52

Half-life (hr) H2O surface water: 2

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Section 12 - ECOLOGICAL INFORMATION

Henry's atm m³ /mol: 0.193

ThOD: 3.42

BCF: 242

According to the results of tests of biodegradability this product is not readily biodegradable. Significant risk of bioaccumulation.

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

LC50/96h/Fathead minnows = 93 mg/l

LC50/96h/Bluegill sunfish = 43-34 mg/l

EC50/48h/Daphnia = 400 mg/l

Section 13 - DISPOSAL CONSIDERATIONS

- Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

WASTE DISPOSAL PROCEDURES

- Recover waste quantities of cyclohexane by distillation or place in a solvent disposal container for incineration. Burn the substance in a furnace equipped with an afterburner and scrubber [Armour 1996].

SPILLAGE DISPOSAL

- Shut off all ignition sources and clear area of personnel. Wear protective clothing, nitrile rubber gloves and a self contained breathing apparatus in the event of a cyclohexane spill. Contain the spill with a 1:1:1 mixture by weight of sodium carbonate or calcium carbonate, bentonite and sand. Scoop the contents of the absorbed mixture into a labelled container and package for incineration. Wash the site of spillage thoroughly with water [Armour 1996].

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID
HAZCHEM: 3[Y]E

UNDG:

Dangerous Goods Class: 3

UN Number: 1145

Shipping Name: CYCLOHEXANE

Subrisk:

Packing Group:

None

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Section 14 - TRANSPORTATION INFORMATION

Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1145	Packing Group:	II
ERG Code:	3H		
Shipping name:CYCLOHEXANE			

Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1145	Packing Group:	II
EMS Number:	F- E, S- D		
Shipping name:CYCLOHEXANE			

Section 15 - REGULATORY INFORMATION

REGULATIONS

cyclohexane (CAS: 110-82-7) is found on the following regulatory lists;
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
OECD Representative List of High Production Volume (HPV) Chemicals

Section 16 - OTHER INFORMATION

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.

Issue Date: 10-Jul-2017