

SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-O-15105
Product Name	Cyclohexyl Isocyanate
CAS No.	3173-53-3
Category	Fine Chemicals
Synonyms	Isocyanato-cyclohexane
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email sales@clearsynth.com for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

- Skin irritation (Category 2)
- Serious eye damage/eye irritation (Category 2)
- Acute toxicity (Category 4)

2.2 Label Elements

Signal Word: Warning



Hazard Statement(s)

Code	Statement
H226	Not available
H302	Harmful if swallowed.

H312	Harmful in contact with skin.
H314	Not available
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Not available
H334	Not available
H335	Not available

Precautionary Statement(s)

Code	Statement
P210	Not available
P233	Not available
P240	Not available
P241	Not available
P242	Not available
P243	Not available
P260	Not available
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P264+P265	Not available
P270	Not available
P271	Use only outdoors or in a well-ventilated area.
P272	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Not available
P301+P317	Not available
P301+P330+P331	Not available
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P302+P361+P354	Not available

P303+P361+P353	Not available
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present
P305+P354+P338	Not available
P316	Not available
P317	Not available
P319	Get medical help if you feel unwell.
P320	Not available
P321	Specific treatment (see ... on this label).
P330	Not available
P332+P317	If skin irritation occurs: Get medical help.
P333+P317	Not available
P337+P317	If eye irritation persists: Get medical help.
P342+P316	Not available
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Not available
P370+P378	Not available
P403	Not available
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Not available
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Cyclohexyl Isocyanate

CAS Number : 3173-53-3

Molecular Formula : C7H11NO

Molecular Weight : 125.17

Parent Chemical : -

Synonyms : Isocyanato-cyclohexane

Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures

General advice:

- Remove contaminated clothing and shoes. Seek medical attention if symptoms occur or persist.
- Show this Safety Data Sheet to the physician in attendance.

Inhalation:

- Move person to fresh air. Keep at rest in a position comfortable for breathing.
- If breathing is difficult, seek medical attention.

Skin contact:

- Wash immediately with plenty of soap and water.
- Seek medical attention if irritation or symptoms develop.

Eye contact:

- Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.
- Continue rinsing and obtain medical attention.

Ingestion:

- Rinse mouth. Do NOT induce vomiting.
- Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Not available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically. No data available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

- Use extinguishing measures appropriate to local circumstances and surrounding environment.
- Not available.

Unsuitable extinguishing media:

- Not available.

5.2 Special hazards arising from the substance or mixture

- Hazardous combustion products: Not available.
- Vapors may be harmful; avoid inhalation of combustion products.

5.3 Advice for firefighters

- Wear self-contained breathing apparatus (SCBA) and full protective gear.
- Cool containers with water spray if exposed to fire.
- Prevent fire-fighting water from entering drains or watercourses.

SECTION 6: Accidental release measures

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6.1 Personal precautions, protective equipment and emergency procedures

- Evacuate unnecessary personnel.
- Ensure adequate ventilation.
- Avoid breathing vapors/mists and avoid contact with skin and eyes.
- Wear appropriate personal protective equipment (see Section 8).

6.2 Environmental precautions

- Prevent further leakage or spillage if safe to do so.
- Avoid release to the environment. Prevent entry into drains, sewers, or waterways.

6.3 Methods and material for containment and cleaning up

- Contain spill with inert absorbent material.
- Collect in suitable, closed containers for disposal.
- Clean contaminated area thoroughly.

6.4 Reference to other sections

- See Section 8 for personal protective equipment and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Use only with adequate ventilation.
- Avoid contact with skin, eyes, and clothing.
- Avoid breathing vapors/mists.
- Keep container tightly closed when not in use.
- Do not eat, drink, or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

- Store in a cool, dry, well-ventilated place.
- Keep container tightly closed.
- Protect from moisture.
- Incompatible materials: Not available.

7.3 Specific end use(s)

- Fine chemical / laboratory use. No further information available.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits:

- Not available.

8.2 Exposure controls

Engineering controls:

- Use local exhaust ventilation or general ventilation to maintain exposure below applicable limits.

Personal protective equipment (PPE):

Eye/face protection:

- Safety glasses with side shields or chemical splash goggles.

Skin protection:

- Wear protective gloves and protective clothing.

Respiratory protection:

- If ventilation is inadequate, use appropriate respiratory protection.

Hygiene measures:

- Wash hands thoroughly after handling.
- Remove contaminated clothing and wash before reuse.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available

Property	Value
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

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10.1 Reactivity

- No data available.

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- No data available.

10.4 Conditions to avoid

- Heat, moisture, and incompatible materials. Further information: Not available.

10.5 Incompatible materials

- Not available.

10.6 Hazardous decomposition products

- Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: /SIGNS AND SYMPTOMS/ A worker suspected of having isocyanate-induced asthma/sensitization will exhibit the traditional symptoms of acute airway obstruction, e.g., coughing, wheezing, shortness of breath, tightness in the chest, and nocturnal awakening. An isocyanate-exposed worker may first develop an asthmatic condition (i.e., become sensitized) after a single (acute) exposure, but sensitization usually takes a few months to several years of exposure. The asthmatic reaction may occur minutes after exposure (immediate), several hours after exposure (late), or a combination of both immediate and late components after exposure (dual). The late asthmatic reaction is the most common, occurring in approximately 40% of isocyanate sensitized workers. After sensitization, any exposure, even to levels below an occupational exposure limit or standard, can produce an asthmatic response that may be life threatening. Experience with isocyanates has shown that monomeric, prepolymeric and polyisocyanate species are capable of producing respiratory sensitization in exposed workers. /Isocyanates/ /LABORATORY ANIMALS: Acute Exposure/ Sprague-Dawley albino rats (5/dose; mixed sexes) were administered cyclohexyl isocyanate via gavage at dose levels of 398, 501, 631 or 794 mg/kg-bw and observed for

14 days. Toxic signs included reduced appetite, decreased activity, increased weakness, collapse and death. One male; two males; two males and one female; and three males and one female died at 398, 501, 631 and 794 mg/kg-bw, respectively. Most deaths occurred within 1 day. Necropsy findings included lung and liver hyperemia and acute gastrointestinal inflammation.

- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: /SIGNS AND SYMPTOMS/ A worker suspected of having isocyanate-induced asthma/sensitization will exhibit the traditional symptoms of acute airway obstruction, e.g., coughing, wheezing, shortness of breath, tightness in the chest, and nocturnal awakening. An isocyanate-exposed worker may first develop an asthmatic condition (i.e., become sensitized) after a single (acute) exposure, but sensitization usually takes a few months to several years of exposure. The asthmatic reaction may occur minutes after exposure (immediate), several hours after exposure (late), or a combination of both immediate and late components after exposure (dual). The late asthmatic reaction is the most common, occurring in approximately 40% of isocyanate sensitized workers. After sensitization, any exposure, even to levels below an occupational exposure limit or standard, can produce an asthmatic response that may be life threatening. Experience with isocyanates has shown that monomeric, prepolymeric and polyisocyanate species are capable of producing respiratory sensitization in exposed workers. /Isocyanates/ /SIGNS AND SYMPTOMS/ Exposure to isocyanates is irritating to the skin, mucous membranes, eyes, and respiratory tract. The most common adverse health outcome associated with isocyanate exposure is asthma due to sensitization; less prevalent are contact dermatitis (both irritant and allergic forms) and hypersensitivity pneumonitis (HP). Contact dermatitis can result in symptoms such as rash, itching, hives, and swelling of the extremities. /Isocyanates/
- Germ cell mutagenicity: No data available.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: /SIGNS AND SYMPTOMS/ The initial symptoms associated with isocyanate-induced hypersensitivity pneumonitis (HP) are flu-like, including shortness of breath, nonproductive cough, fever, chills, sweats, malaise, and nausea. After the onset of HP, prolonged and/or repeated exposures may lead to an irreversible decline in pulmonary function and lung compliance and to the development of diffuse interstitial fibrosis. Early diagnosis is difficult since many aspects of HP, i.e., the flu-like symptoms and the changes in pulmonary function, are manifestations common to many other respiratory diseases and conditions. /Isocyanates/
- Aspiration hazard: No data available.

Likely routes of exposure

- No data available.

Symptoms related to the physical, chemical and toxicological characteristics

- Burning sensation. Cough. Headache. Laboured breathing. Shortness of breath. Sore throat. Symptoms may be delayed.

SECTION 12: Ecological information

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12.1 Toxicity

- No data available.

12.2 Persistence and degradability

- No data available.

12.3 Bioaccumulative potential

- No data available.

12.4 Mobility in soil

- No data available.

12.5 Results of PBT and vPvB assessment

- Not available.

12.6 Endocrine disrupting properties

- No data available.

12.7 Other adverse effects

- No data available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product:

- Dispose of contents/container in accordance with local/regional/national/international regulations.
- Do not discharge to drains or the environment.

Contaminated packaging:

- Dispose of as unused product in accordance with applicable regulations.

Waste code:

- Not available.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number

- Not available.

14.2 UN proper shipping name

- Not available.

14.3 Transport hazard class(es)

- Not available.

14.4 Packing group

- Not available.

14.5 Environmental hazards

- Not available.

14.6 Special precautions for user

- Not available.

14.7 Maritime transport in bulk according to IMO instruments

- Not available.

SECTION 15: Regulatory information

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15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Not available.

15.2 Chemical safety assessment

- No data available.

SECTION 16: Other information

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Product identification:

- Product name: Cyclohexyl Isocyanate
- Synonyms: Isocyanato-cyclohexane
- CAS No.: 3173-53-3
- Catalog No.: CS-O-15105
- Supplier: Clearsynth Labs Ltd., Mumbai, India
- Emergency phone: +91-22-245045900

Revision information:

- Not available.

Disclaimer:

- The information provided is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The supplier shall not be held liable for any damage resulting from handling or from contact with the product.

DISCLAIMER

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