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ESTD.1976 MULTI CHEM YOUR CHEMICAL PARTNER

SAFETY DATA SHEET

CYCLOHEXYLAMINE

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

1.1 Product identifier:	
CAS Number:-	108-91-8
EC number:	203-629-0
1.2 SYNONYMS:	• Aminocyclohexane • cyclohexanamine

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Flammable liquids (Category 3) Acute toxicity, Oral (Category 3) Acute toxicity, Dermal (Category 3) Skin corrosion (Category 1B) Reproductive toxicity (Category 2)
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	**H226:** Flammable liquid and vapor. **H301 + H311:** Toxic if swallowed or in contact with skin. **H314:** Causes severe skin burns and eye damage. **H361f:** Suspected of damaging fertility.
Precautionary Statements:	**P201:** Obtain special instructions before use. **P210:** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

	P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. **P301 + P310 + P330:** IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth. **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. **P405:** Store locked up. **P501:** Dispose of contents/ container to an approved waste disposal plant.
2.3 Other hazards:	
Inhalation:	can cause respiratory irritation, dizziness, headache, and, in high concentrations, central nervous system depression.
Ingestion:	can cause nausea, vomiting, abdominal pain, and may lead to systemic toxicity affecting the liver, kidneys, and central nervous system.
Skin Contact:	can cause irritation, redness, and burns, and prolonged exposure may result in absorption through the skin leading to systemic toxicity.
Eye contact:	can cause severe irritation, redness, pain, and potentially serious damage to the eyes, including burns or vision impairment.
Chronic Exposure:	may lead to liver and kidney damage, central nervous system effects, and possible reproductive

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	toxicity with prolonged or repeated contact.
Aggravation of pre-existing conditions:	may aggravate pre-existing conditions involving the skin, eyes, respiratory system, liver, or kidneys due to its irritating and toxic effects.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 108-91-8 CYCLOHEXYLAMINE
Identification number(s):	EC number: 203-629-0

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact:	Remove contaminated clothing immediately. Wash with soap and water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion. If conscious, make victim drink two glasses at most immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed:	The most important symptoms and effects, both acute and delayed, include irritation of the eyes, skin, and respiratory tract, headache, dizziness, nausea, and in severe or prolonged cases, damage to the liver, kidneys, and central nervous system.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Dry sand. Do **NOT** use water jet
5.2 Special hazards arising from the substance or mixture:	Carbon oxides, nitrogen oxides.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.

6.3 Methods and material for containment and cleaning up:	Take up spill into absorbent material, e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Spill must not return in its original container. Do **NOT** use water for cleaning spills.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area. Do not handle in flammable atmospheres.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties General Information	
Appearance: Form:	Liquid
Colour:	Colourless to slight yellow
Odour:	Amine like
pH-value:	11

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Melting point/Melting range:	-17°C
Boiling point/Boiling range:	134°C
Flammability (solid, gaseous):	Flammable
Ignition temperature:	293°C
Decomposition temperature:	Not determined
Self-igniting:	None
Flash point:	27°C
Danger of explosion:	None
Explosion limits: Lower:	1.3%
Explosion limits: Upper:	9.4%
Vapour pressure:	6.5 mmHg at 25°C
Density at 20 °C:	0.87 g/cm^3
Relative density:	0.87
Vapour density:	3.42
Evaporation rate:	No data available
Solubility in / Miscibility with-·water at 20 °C:	Soluble
Partition coefficient:(n-octanol/water)	1.96
Viscosity:	2.6 mPa.s at 20°C

SECTION 10: Stability and reactivity

10.1 Reactivity	Highly reactive with acids , acid chlorides and strong oxidizing agents.
10.2 Chemical stability	Stable under room temperatures.
10.3 Possibility of hazardous reactions	May react with strong oxidizing agents, acids to form toxic products.
10.4 Conditions to avoid	Heat, flames, spark, static discharge
10.5 Incompatible materials	Strong oxidizing agents, acids, acid chlorides, anhydrides, carbon dioxide, water.
10.6 Hazardous decomposition products	Carbon oxides, nitrogen oxides,

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SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	**LD50** (Oral, Rat): 432 mg/kg **LD50** (Dermal, Rabbit): 1.100 mg/kg **LC50** (Inhalation Rat): no data available
Skin corrosion/Irritation:	Corrosive
Serious eye damage/irritation:	Causes serious eye damage
Respiratory damage/irritation:	No data available
Ingestion:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	Suspected of damaging fertility.
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Readily Biodegradable

SECTION 12: Ecological information

12.1 Toxicity **Aquatic toxicity:**	LC50(fish): 11.6 mg/l (96hr) EC50(daphnia): 100 mg/l (48 hr) ErC50(algae): 4.22 mg/l (72 hr)
12.2 Persistence and degradability:	Not Biodegradable
12.3 Bioaccumulative potential:	low bioaccumulative
12.4 Mobility in soil:	high mobility
12.5 Other adverse effects:	No data available

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SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Dry sand.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	2357
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	CYCLOHEXYLAMINE
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	8(3)
14.4 Packing group · ADR, IMDG, IATA:	2
14.5 Environmental hazards:	None
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is classified in listed substance as flammable liquid
Named dangerous substances:	This substance is listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make

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