

Cyanuric Chloride CAS No 108-77-0	MATERIAL SAFETY DATA SHEET SDS/MSDS
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Cyanuric Chloride

CAS-No. : 108-77-0

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd
 7/28 Vardaan House
 Ansari Road Daryaganj
 New Delhi-110002
 INDIA

Telephone : +91 11 49404040

Email : care@cdhfinechemical.com

1.4 Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 2), H330

Skin corrosion (Category 1B), H314

Skin sensitisation (Category 1), H317

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage.

H317	May cause an allergic skin reaction.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
Precautionary statement(s)	
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284	Wear respiratory protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES:
P305 + P351 + P338	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard information (EU)	
EUH014	Reacts violently with water.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Reacts violently with water.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	:	2,4,6-Trichloro-1,3,5-triazine
Formula	:	C ₃ Cl ₃ N ₂
Molecular weight	:	184.41 g/mol
CAS-No.	:	108-77-0
EC-No.	:	203-614-9
Index-No.	:	613-009-00-5

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
2,4,6-Trichloro-1,3,5-triazine		
CAS-No.	108-77-0	<= 100 %
EC-No.	203-614-9	
Index-No.	613-009-00-5	
	Acute Tox. 4; Acute Tox. 2; Skin Corr. 1B; Skin Sens. 1; STOT SE 3; H302, H330, H314, H317, H335	
	Concentration limits: >= 5 %: STOT SE 3, H335;	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Dry powder

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

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 dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage.

Recommended storage temperature 2 - 8 °C

Air and moisture sensitive. Handle and store under inert gas. Storage class (TRGS 510): Combustible solids, toxic

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

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 and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, Flame retardant protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- | | |
|-------------------------------------------------|------------------------------------------------------------------------------------------|
| a) Appearance | Form: powder |
| b) Odour | No data available |
| c) Odour Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | Melting point/range: 145 - 147 °C - lit. |
| f) Initial boiling point and boiling range | 190 °C - lit. |
| g) Flash point | > 200 °C - closed cup - Tested according to Annex V of Directive 67/548/EEC. |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | The product is not flammable. - Flammability (solids) |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapour pressure | 0.6 hPa at 20 °C - OECD Test Guideline 104
2.5 hPa at 40 °C - OECD Test Guideline 104 |
| l) Vapour density | 6.37 - (Air = 1.0) |
| m) Relative density | No data available |

- | | | |
|----|----------------------------------------|-------------------|
| n) | Water solubility | 0.44 g/l at 20 °C |
| o) | Partition coefficient: n-octanol/water | log Pow: 0.512 - |
| p) | Auto-ignition temperature | No data available |
| q) | Decomposition temperature | No data available |
| r) | Viscosity | No data available |
| s) | Explosive properties | Not explosive |
| t) | Oxidizing properties | No data available |

9.2 Other safety information

- | | |
|-------------------------|-------------------------|
| Bulk density | 1,920 kg/m ³ |
| Relative vapour density | 6.37 - (Air = 1.0) |

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reacts violently with water.

10.4 Conditions to avoid

Exposure to moisture

10.5 Incompatible materials

Strong oxidizing agents, Strong acids, Alcohols, Dimethylformamide, Amines, Dimethyl sulfoxide. (DMSO)

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 315 mg/kg(2,4,6-Trichloro-1,3,5-triazine)

(OECD Test Guideline 423)

LC50 Inhalation - Rat - male - 4 h - 150 mg/l(2,4,6-Trichloro-1,3,5-triazine)

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - > 2,000 mg/kg(2,4,6-Trichloro-1,3,5-triazine)

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit(2,4,6-Trichloro-1,3,5-triazine)

Result: Causes burns. - 24 h

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit(2,4,6-Trichloro-1,3,5-triazine)

Result: Severe eye irritation - 24 h

(OECD Test Guideline 405)

Respiratory or skin sensitisation

Maximisation Test - Guinea pig(2,4,6-Trichloro-1,3,5-triazine)

May cause sensitisation by skin contact.

(OECD Test Guideline 406)

Germ cell mutagenicity

No data available(2,4,6-Trichloro-1,3,5-triazine)

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available(2,4,6-Trichloro-1,3,5-triazine)

Specific target organ toxicity - single exposure

The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.(2,4,6-Trichloro-1,3,5-triazine)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(2,4,6-Trichloro-1,3,5-triazine)

Additional Information

RTECS: Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(2,4,6-Trichloro-1,3,5-triazine)

Liver - Irregularities - Based on Human Evidence(2,4,6-Trichloro-1,3,5-triazine)

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50 - Carassius auratus (goldfish) - 540 mg/l - 48 h(2,4,6-Trichloro-1,3,5-triazine)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Does not bioaccumulate.

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Dissolve or mix the material with a combustible solvent and burn in a chem scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 2670

IMDG: 2670

IATA: 2670

14.2 UN proper shipping name

ADR/RID: CYANURIC CHLORIDE

IMDG: CYANURIC CHLORIDE

IATA: Cyanuric chloride

14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

EUH014	Reacts violently with water.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

H330	Fatal if inhaled.
H335	May cause respiratory irritation.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.