

Safety Data Sheet

According to Regulation (EC) No 1907/2006

Mul-Trichloroisocyanuric Acid 87%Tablet

Version 1.2

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SDS Record Number: CSSS-TCO-010-112477

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: Mul-Trichloroisocyanuric Acid 87%Tablet
Additional identification: Not available
Identification of the product: See section 3
Index Number: Not available
REACH registration No.: Not available

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Identified uses:

Used in water treatment and disinfection.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): -
Supplier(Manufacturer): Puyang cleanway chemicals ltd.
Address: Wanglou Industry Zone, Fan County, Puyang, Henan Prov
Contact person(E-mail): yingyingbinhai@hotmail.com
Telephone: +86-15053203217
Fax: +86-393-4638678

1.4 Emergency telephone Number:

+86-393-4630477, 4616168 Only available during office hours (9:00a.m.-17:00p.m. Beijing Time Zone)

Available outside office hours? YES NO

Section 2 Hazards Identification

2.1 Classification of the substance/mixture:

2.1.1 Classification:

The mixture is classified as following according to 1999/45/EC and REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categorie	Hazard statement
Ox. Sol. 2	H272
Acute Tox. 4	H302
Eye Irrit. 2	H319
STOT SE 3	H335
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

For full text of H- phrases: see section 2.2.

1999/45/EC	
Hazards characteristics	R-Phrases
O	R8
Xn	R22
Xi	R36/37
N	R50-53
-	R31

For full text of R- phrases: see section 16.

2.2 label elements:

Hazard Pictograms:



Signal Word(S):

Danger

Hazard Statement:

H272: May intensify fire; oxidizer.

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:

P210: Keep away from heat/ sparks/open flames/hot surfaces. — No smoking.

P220: Keep/Store away from clothing/combustible materials.

P221: Take any precaution to avoid mixing with combustibles.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection

P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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 or doctor/physician if you feel unwell.

P330: Rinse mouth.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P370 + P378: In case of fire: Use dry powder for extinction.

P391: Collect spillage.

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/container in according with local regulation.

2.3 Other hazards:

Not applicable.

Section 3 Composition/information on ingredients

Substance/Mixture:

Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Trichloroisocyanuric acid	N/A	87-90-1	201-782-8	96.8%-97%
Aluminium sulphate	N/A	10043-01-3	233-135-0	1%
Copper sulphate	N/A	7758-98-7	231-847-6	1%
Boric acid	N/A	10043-35-3	233-139-2	1%-1.2%

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

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

4.1.2 In case of skin contact:

Wash skin with soap and plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, seek medical attention.

4.1.3 In case of eyes contact:

Wash eyes with copious amount of water for at least 15 minutes. If irritation persists, seek medical attention.

4.1.4 In case of ingestion:

Rinse mouth with water. Drink plenty of water, but never give anything to an unconscious person. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed:

Harmful if swallowed. Causes serious eye irritation. May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Fire-Fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Dry powder.

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NO_x), Hydrogen chloride gas.

5.3 Special fire fighting methods and special protective actions for fire-fighters:

Fire-fighters should wear full protective clothing and self-contained breathing apparatus (SCBA).

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Use personal protective equipment. Evacuate area of all unnecessary personnel. Ensure good ventilation/exhaustion at the workplace. Avoid breathing dust. Avoid contact with eyes, skin and clothing.

6.1.2 For emergency responders:	Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.
6.2 Environmental Precautions:	Do not allow material to be released to the environment without proper governmental permits
6.3 Methods for Containment and Cleaning up:	Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. Keep in suitable, closed containers for disposal.
6.4 Reference to other sections:	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for information on disposal.
6.5 Additional information:	Not applicable.

Section 7 Handling and storage

7.1 Precautions for safe handling:	
7.1.1 Protective measures:	Use personal protective equipment. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Ensure good ventilation/exhaustion at the workplace. Wash thoroughly after handling.
7.1.2 Advice on general occupational hygiene:	Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.
7.2 Conditions for safe storage, including any incompatibilities:	Store in a dry, well-ventilated place. Keep container closed when not in use. Store in original containers. Keep away from incompatible materials. Never allow product to get in contact with water during storage. Do not store near acids. Store under inert gas.
7.3 Specific end use(s):	Not applicable.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:	
8.1.1 Occupational exposure limits:	Not available.
8.1.2 Additional exposure limits under the conditions of use:	Not available.
8.1.3 DNEL/DMEL and PNEC-Values:	Not available.
8.2 Exposure controls:	
8.2.1 Appropriate engineering controls:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.
8.2.2 Individual protection measures, such as personal protective equipment:	
Eye/face protection:	Wear tightly sealed goggles.
Hand protection:	Type of gloves recommended—Nitrile rubber. Minimum breakthrough time / gloves: 480 min; Minimum thickness / gloves: 0.11 mm.
Body protection:	Wear plastic apron, sleeves, boots, if handling large quantities.
Respiratory protection:	Use respiratory protection for chlorine and dust inhalation protection.
Thermal hazards:	Wear suitable protective clothing to prevent heat.
8.2.3 Environmental exposure controls:	Avoid discharge into the environment. According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	Solid,
Colour:	White
Odour:	Chlorine odor
Odour threshold:	Not available
pH:	2.7-3.3
Melting point/range (°C):	>225°C (Decomposition)
Boiling point/range (°C):	Not available
Flash point (°C):	Not available
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower flammability/explosive limits:	Not available
Vapour pressure (20°C):	Not available
Vapour density:	Not available
Relative Density:	2.07g/cm ³
Bulk density (kg/m ³):	~ 850 kg/m ³ (Trichloroisocyanuric acid)
Water solubility (g/l):	1.2g/100ml
n-Octanol/Water (log Po/w):	Log Pow=0.26
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Non-explosive
Oxidising properties:	Strong oxidizing
Molecular Formula:	Not applicable
Molecular Weight:	Not applicable

9.2. Other information:

Fat solubility(solvent– oil to be specified) etc:	Not available
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available
Specific gravity:	Not available

Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known. Contact with acids liberates toxic gas.
10.4 Conditions to avoid:	Incompatible materials. Dust generation, exposure to moist air or water.

- 10.5 Incompatible materials:** Avoid contact with easily oxidisable material. Strong reducing agents, strong bases, hypochlorites, water
- 10.6 Hazardous decomposition products:** Carbon oxides, nitrogen oxides (NO_x), hydrogen chloride gas.

Section 11 Toxicological information

11.1 Toxicokinetics, metabolism and distribution:

Non-human toxicological data: Not available

11.2 Information on toxicological effects:

Acute toxicity:

LD50(Oral, Rat): 490 mg/kg (Trichloroisocyanuric acid)

LD50(Dermal, Rabbit): 7600 mg/kg (Trichloroisocyanuric acid)

LC50(Inhalation, Rat): Not available

Skin corrosion/Irritation: Non irritant

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitization: Not sensitizing

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT- single exposure: May cause respiratory irritation.

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

Section 12 Ecological information

Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
LC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Results of PBT&vPvB assessment: Not available.

Other adverse effects: Do not empty into drains.

Section 13 Disposal considerations

13.1 Waste treatment methods: The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.

13.2 Product / Packaging disposal: If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

Section 14 Transport information

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	2468	2468	2468
UN Proper shipping name	Trichloroisocyanuric Acid, dry	Trichloroisocyanuric Acid, dry	Trichloroisocyanuric Acid, dry
Transport hazard Class	5.1	5.1	5.1
Packaging group	II	II	II
Environmental hazards	Yes	Yes	Yes
Special precautions for user	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	IBC08	IBC08	IBC08

Section 15 Regulation information

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

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations: Not applicable

Chemical Safety Assessment has been carried out? YES NO

Section 16 Other information

16.1 Indication of changes:

Version 1.2 Amended by EU No 453/2010

16.2 Relevant R- phrases (number and full text):

R8 Contact with combustible material may cause fire.

R22 Harmful if swallowed.

R31 Contact with acids liberates toxic gas.

R36/37 Irritating to eyes and respiratory system.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16.3 Training instructions:

Not applicable.

16.4 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.5 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.