

Safety Data Sheet

Version: 1.0

Product name: HEZE HUAYI 90 Disinfecting Tablets

Revision date: 28-May-2015

Printing date: 28-May-2015

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

1.1 Product identification

Product name: HEZE HUAYI 90 Disinfecting Tablets
For Manufacturing Use Only

Chemical name: Trichloro-s-triazinetriene

Synonyms: Trichloroisocyanuric Acid; TCCA; Trichlor; Trichloro-s-triazinetriene; Symclosene

Chemical class: Chloroisocyanurate

CAS No.: 87-90-1

EPA Registration No.: 83936-3

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

Identified uses: This product is intended for repackaging and formulating as a microbiocide/microbiostat, disinfectant, sanitizer, bactericide, fungicide, or algacide into end-use products for the following general use sites: aquatic non-food industrial, aquatic non-food residential, indoor food, indoor non-food, and indoor residential. Re-packers are responsible for obtaining EPA registration of their products.

Uses advised against: No information available.

1.3 Details of the supplier of the SDS

Manufacturer: HEZE HUAYI CHEMICAL CO., LTD.
NO.1 EAST CONSTRUCTION STREET

Address: JUANCHENG COUNTY SHANDONG, China
P.C.: 274600

E-mail: Chem8@huayi-chem.com

Telephone: +0086-530-2429008

Fax: +0086-530-2999589

Importer/Distributor:

Address:

E-mail:

Telephone:

Fax:

1.4 Emergency telephone number

In USA:

In China: +86-530-2402588 (Only office hours available.)

Section 2: Hazards identification

2.1 GHS Hazard Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

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Hazard	Category	Code
Oxidizing solids	Category 2	H272
Acute toxicity oral	Category 4	H302
Acute toxicity inhalation	Category 2	H330
Eye damage/irritation	Category 2	H318
Skin Corrosion/Irritation	Category 1C	H314
Specific Target Organ Toxicity - Single exposure	Category 3	H335
Hazards to aquatic environment, Acute and Chronic:	Category 1	H400 H410

Physical state: Tablets

Color: White

Odor: Slight chlorine

2.2 Label elements

Hazard pictogram(s):



Signal word:

DANGER

Hazard statements:

H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H330 Fatal if inhaled.

H335 May cause respiratory irritation.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces.-No smoking. Store away from readily combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

P260 Do not breathe dusts or mists.

P264 Wash thoroughly after handling. P270 Do not eat drink or smoke. P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/eye protection.

P261 Avoid breathing dust.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. Do not induce vomiting.

P303 + P361 + P353: IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. P363: Wash contaminated clothing before reuse.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a poison center or doctor.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310: Immediately call a poison center or doctor. If exposed or if you feel unwell. Treatment is urgent.

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Storage: P403 + P233 - Store locked up in a dry well ventilated place. Keep in original container tightly closed.

Disposal: P501 Dispose of contents/container in accordance with local, state and federal regulations. Do not release into the environment.

2.3 Other hazards

Wet or moist material will cause eye and skin burns.

Section 3: Composition/information on ingredients

3.1 Substance information

Chemical name:	CAS No.	Percent
Trichloro-s-triazinetriene	87-90-1	99.0
Other ingredients	-	1.0

Section 4: First aid measures

General: Have the product container, label and/or this safety data sheet with you when calling a Poison Control Center or going for medical treatment.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a Poison Control Center or doctor for treatment advice.

IF SWALLOWED: Call a Poison Control Center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Rinse mouth. Do not give anything by mouth to an unconscious person. Do not induce vomiting unless directed to do so by poison control center or doctor. Immediate medical attention is required.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, give artificial respiration, by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: Probable mucosal damage may contra indicate the use of gastric lavage. Treat symptomatically.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: Cough. Sore throat. Labored breathing.

Skin: Redness, irritation, swelling, scab formation. Repeated or prolonged skin contact may cause tissue damage.

Eyes: Redness. Pain. Impaired vision. Corneal damage

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Ingestion: Abdominal pain. Burning sensation. Shock or collapse. Nausea, vomiting, diarrhea, bleeding and/or tissue ulceration. Burns can occur to the gastrointestinal tract with potential for perforation.

Human Health Hazards: Corrosive. Do not get in contact with eyes, can cause irreversible eye damage. Avoid contact with skin; may cause burns to moist skin, if not promptly removed. Avoid breathing dust from this material.

Section 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water in large amounts. Foam. Dry powder.

Unsuitable extinguishing media:

Dry chemical containing ammonia compounds.

Firefighting measures:

Evacuate area. Use extinguishing media appropriate for surrounding fire. Keep fire-exposed containers cool with water spray. If possible, avoid contact of this material with water. Do not allow contaminated firefighting water and spillage to enter sewers, drains and waterways. Contain run-off water with temporary dike. Prevent use of contaminated buildings, area and equipment until decontamination.

5.2 Unusual fire and explosion hazards

Not combustible but will enhance combustion of other combustible materials. Heating to decomposition may release poisonous and corrosive fumes of nitrogen trichloride, chlorine, nitrous oxides, cyanates, and carbon oxides. Wet material may generate nitrogen trichloride, an explosion hazard.

5.3 Protective equipment and precautions for firefighters

Wear full protective firefighting gear including self-contained breathing apparatus in pressure demand mode (MSHA/NIOSH approved or equivalent).

Section 6: Accidental release measures

6.1 Personal precautions

Isolate area and deny entry by unnecessary people. Ensure adequate ventilation. Wear tightly fitting chemical safety goggles. Have suitable clothing and gloves, avoid contact with skin. A self-contained breathing apparatus should be used, if working in contaminated area. Remove clothing immediately after work. Wash hands thoroughly before eating, drinking, smoking or using the toilet.

6.2 Environmental precautions

Prevent spillage from contaminating soil or entering waterways, sewers, drains and confined areas.

6.3 Methods for containment

Stop leak if safe to do so. Do not get water inside container or on spilled material. Avoid raising dust. Ensure ventilation and circulation of air. Damp material/product should be neutralized to a non-oxidizing state.

6.4 Methods for cleanup

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Clean spill immediately. Do not use floor sweeping compounds to clean up spill. Clean up all spilled material with clean, dry dedicated equipment and place in a clean dry container for disposal.

Section 7: Handling and storage

7.1 Precautions for safe handling

Do not get in eyes, on skin, and or on clothing. Avoid breathing dust and vapors when opening product containers. Avoid creation of dust. Wash thoroughly after handling. Never add water to this product; always add the product to large quantities of water. Use clean and dry utensils. Do not add the product to any dispensing device containing residuals of other products. Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Follow all local regulations and standards for proper storage. Keep properly labeled product container tightly closed in a cool, dry, well-ventilated place. Do not store at temperatures above 140°F (60°C). Keep away from food, drink and animal feed. Keep separated from incompatible substances such as: acids, bases, ammonia, sweeping compounds, calcium hypochlorite, reducing agents, organic solvents and combustible materials.

Section 8 : Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits:

This product, as supplied, does not contain occupational exposure limits established by the region specific regulatory bodies.

Manufacturer's Recommended Exposure Limits:

Threshold Limit Value 8 Hour Time Weighted Average: 0.5 mg/m³

8.2 Exposure controls

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this material. End users and commercial applicators should refer to the product label for personal protection equipment.

Appropriate engineering controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the recommended exposure limits. Provide emergency eye wash fountain and quick drench shower in immediate work area.

Personal protective equipment:

Eye and face protection:	Wear safety glasses with side shields.
Skin and body protection:	Wear chemical protective clothing to minimize skin contact. Contaminated clothing should be laundered before reuse.
Hand protection:	Wear chemical resistant gloves of either: Neoprene, Nitrile, Butyl rubber, Polyvinyl chloride (PVC) material. Refer to glove manufacturer for appropriate glove material.
Respiratory protection:	If airborne concentrations exceed exposure limits or when symptoms occur

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indicating overexposure, a NIOSH/OSHA approved respirator with N95 cartridges is recommended. In dusty conditions a full face respirator is required.

Industrial hygiene:

Do not eat, smoke or drink when handling, processing this material. Wash hands thoroughly after handling and before eating, drinking or smoking. Observe good industrial hygiene practices.

Section 9: Physical and chemical properties

9.1 Information on physical and chemical properties

Physical state:	Solid, Tablets
Color:	White
Odor:	Chlorine
pH:	2.7 - 3.3 at 25°C (1% aqueous solution)
Melting point:	No data available.
Boiling point:	Not applicable
Bulk density:	2.07 g/cm ³ at 25°C
Vapor pressure:	<0.002 Pa at 20°C (Literature)
Partition coefficient (n -octanol/water):	Log Kow = 0.94 (Estimated)
Solubility in water:	12 g/l in water at 25°C
Flash point:	Not applicable
Decomposition temperature:	247°C
Explosive properties:	Not explosive.

Section 10: Stability and reactivity

10.1 Reactivity

Wet or moist material may generate nitrogen trichloride, a potential explosion hazard, evolve toxic fumes.

10.2 Chemical stability

Stable under normal temperature conditions and recommended uses.

10.3 Possibility of hazardous reactions

A risk of explosion and/or of toxic gas formation exists with the following: Organic Substances, combustible substances, nitrogenous compounds, ammonia, ammonium compounds, urea, bases, oxidizers and water. Generates dangerous gases or fumes in contact with: acids.

10.4 Conditions to avoid

Exposure of material to moisture, dampness and heating.

10.5 Incompatible materials

Incompatible products are: floor sweeping compounds, sawdust, acids, ammonia, bases, calcium hypochlorite, reducing agents and organic solvents and materials.

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10.6 Hazardous decomposition products

Chlorine, cyanates, chloride, carbon monoxide carbon dioxide, nitrogen, nitrogen trichloride, nitrous oxides, and phosgene.

Section 11: Toxicological information

11.1 Likely Routes of Exposure:

Skin; Inhalation; Eye contact; Ingestion

11.2 Numerical toxicity values

Acute toxicity:

Acute Oral LD₅₀: = 406 mg/kg (rat) (Literature)

Acute Inhalation LC₅₀: = 0.09 – 0.29 mg/L (rat) (Literature)

Acute Dermal LD₅₀: > 2000 mg/kg (rabbit) (Literature)

Skin corrosion/irritation:

Causes skin corrosion.

Eye irritation/damage:

Causes severe eye damage.

Dermal sensitization:

Not a skin sensitizer

Carcinogenicity, Mutagenicity and Reproductive Toxicity:

No component of this product present at levels greater than or equal to 0.1% is classified or listed as a carcinogen by NTP, IARC or OSHA.

The substance is not classified as mutagenic or toxic to reproduction.

11.3 Description of symptoms

Inhalation: Cough. Sore throat. Labored breathing.

Skin: Redness, irritation, swelling, scab formation. Repeated or prolonged skin contact may cause tissue damage.

Eyes: Redness. Pain. Impaired vision. Corneal damage

Ingestion: Abdominal pain. Burning sensation. Shock or collapse. Nausea, vomiting, diarrhea, bleeding and/or tissue ulceration. Burns can occur to the gastrointestinal tract with potential for perforation..

Section 12: Ecological information

12.1 Toxicity

Acute toxicity to fish: LC₅₀ = 0.13 – 0.5 mg/L 96h (*Lepomis macrochirus*)(ECOTOX Database);

Acute toxicity to daphnia: EC₅₀ = 0.21 mg/L 48h (*Daphnia magna*)(ECOTOX Database);

Acute toxicity to bacteria: EC₅₀ = 0.6 mg/L 0.5h (*Photobacterium phosphoreum*) (Merck).

12.2 Persistence and degradability

Material is subject to hydrolysis. Acid produced by hydrolysis is biodegradable.

12.3 Bioaccumulative potential

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Not expected to bioaccumulate in the aquatic environment

12.4 Mobility in soil

The Koc of trichloroisocyanuric acid is estimated at 25, material is expected to be very mobile in soil.

Section 13: Disposal considerations

13.1 Material disposal

Waste material must be disposed in accordance with applicable federal, state and local environmental control regulations. Keep spilled product out of trash containers, drains, and sewers. Incompatible material can cause a reaction and combustion. Do not transport wet or damp material. Damp material should be neutralized.

13.2 Container disposal

Empty container should be disposed of in accordance with local, state and federal regulations. Refer to product label.

13.3 California hazardous waste

Waste type: A

Toxic, ignitable

Section 14: Transport information

14.1 U.S. DOT (49CFR):

UN-No.:	2468
Proper shipping name:	TRICHLOROISOCYANURIC ACID, DRY
Class:	5.1
Packing group:	II
Hazard label:	5.1
ERG No.:	140

14.2 Sea transport (IMDG-IMO)

Proper Shipping Name:	TRICHLOROISOCYANURIC ACID, DRY
Class:	5.1
UN-No.:	2468
Packing group:	II
EmS No.:	F-A, S-Q
Marine pollutant:	This material meets the definition of a marine pollutant

14.3 Air transport (ICAO/IATA)

Proper Shipping Name:	TRICHLOROISOCYANURIC ACID, DRY
Class:	5.1
UN-No.:	2468

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Packing group: II
ERG No.: 5L

14.4 Additional information

For shipments by vessel or bulk quantities (> 882 pounds) by motor vehicle or aircraft, add "Marine Pollutant (Trichloroisocyanuric Acid)" to shipping description and label containers with Marine Pollutant markings.

Section 15: Regulatory information

Federal Regulations

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal Word: DANGER

EPA Registration No.: 83936-3

Corrosive. Causes irreversible eye damage and skin burns. May be fatal if inhaled. Harmful if swallowed or absorbed through skin. Irritating to nose and throat.

This pesticide is toxic to fish and aquatic organisms.

Strong oxidizing agent.

Superfund Amendments and Reauthorization Act (SARA 311/312) Hazard Categories:

Immediate health: Yes

Fire: Yes

Reactivity: Yes

Emergency Planning and Community Right to Know Act (SARA 313):

This product does not contain chemicals subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.65

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

This product does not contain any chemicals subject to reporting requirements (RQ) of CERCLA (40 CFR 302.4).

US State Regulations

California Proposition 65:

This product does not contain substances listed on California Proposition 65.

State Right-to-Know:

New Jersey	New York	Massachusetts	Pennsylvania
X	X	X	X

Global Chemical Inventories:

USA - TSCA: Listed

Canada – DSL/NDL: Listed on the DSL.

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Australia - AICS: Listed
Korea - ECL: Listed
China - IECSC: Listed

Section 16: Other information

NFPA Hazard Identification Ratings (Scale: 0-4)

Health: 3	Flammability: 0	Instability: 2	Oxidizing agent: ox
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HMIS Hazard Ratings (Scale 0-4)

Health: 3	Flammability: 0	Reactivity: 2	Personal protection: X
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16.1 Revision Information:

Issue date: May 28, 2015

Revision date: May 28, 2015

Reason for revision: Classification according to OSHA Global Harmonized System.

Revision No.: 1

16.2 Abbreviations and acronyms

CAS: Chemical Abstracts Service (division of the American Chemical Society).
IMDG/IMO: International Maritime Code for Dangerous Goods / International Maritime Organization
IATA/ICAO: International Air Transport Association / International Civil Aviation Organization
OSHA: United States Occupational Safety and Health Administration.
GHS: Global Harmonized System of Hazard Classification
TSCA: Toxic Substances Control Act, The American chemical inventory.
DSL/NDSL: Domestic Substances List/Non-Domestic Substances List, The Canadian chemical inventory.
AICS: The Australian Inventory of Chemical Substances.
ECL: Existing Chemicals List, the Korean chemical inventory.
IECSC: Inventory of existing chemical substances in China.

16.4 Relevant Hazard-statements

H-statements (code and full text):

H272 May intensify fire; oxidizer.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.

H330 Fatal if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

16.6

The information in this Safety Data Sheet (SDS) was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and

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may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

----- End of Safety Data Sheet -----