



Material Safety Data Sheet

Catalog Number: 229893
Revision date: 07-Mar-2012

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY INFORMATION

Catalog Number: 229893

Product Name: 2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE

Synonyms: Tetrazolium Red

Supplier:

MP Biomedicals, LLC
29525 Fountain Parkway
Solon, OH 44139
tel: 440-337-1200

Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA Exposure Limits:
2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE	298-96-4	90 - 100%	None	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May cause skin irritation and/or dermatitis

Principle routes of exposure: Skin

Inhalation: May cause irritation of respiratory tract

Ingestion: May be harmful if swallowed.

Skin contact: May cause allergic skin reaction

Eye contact: Avoid contact with eyes

Statements of hazard MAY CAUSE ALLERGIC SKIN REACTION.

Statement of Spill or Leak - ANSI Label Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.

4. FIRST AID MEASURES

General advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Skin Contact For minor skin contact, avoid spreading material on unaffected skin.

Eye Contact In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Rinse mouth Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

Inhalation Call a physician or Poison Control Center immediately.

Notes to Physician No information available

Medical conditions aggravated by exposure: None known

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, CO ₂ , water spray or regular foam.
Specific hazards:	Burning produces irritant fumes.
Unusual hazards:	None known
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific methods:	Water mist may be used to cool closed containers.
Flash point:	Not determined
Autoignition temperature:	Not determined
NFPA rating:	
NFPA Health:	2
NFPA Flammability:	0
NFPA Reactivity:	0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ensure adequate ventilation.
Environmental Precautions	Local authorities should be advised if significant spillages cannot be contained.
Methods for Cleaning Up	Cover powder spill with plastic sheet or tarp to minimize spreading.

7. HANDLING AND STORAGE

Technical Measures/Precautions

+4°C
DESICCATE
PROTECT FROM LIGHT

Handling	No information available.
Safe handling advice:	Wear personal protective equipment.
Incompatible products:	Oxidising and spontaneously flammable products

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Ensure adequate ventilation.

Respiratory protection: Breathing apparatus only if aerosol or dust is formed.

Skin and Body Protection Pvc or other plastic material gloves

Other Protective Equipment Usual safety precautions while handling the product will provide adequate protection against this potential effect.

Hygiene Measures Contaminated work clothing should not be allowed out of the workplace.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Powder
Formula:	C ₁₉ H ₁₅ N ₄ •Cl
Molecular weight:	334.81
Melting point/range:	243-250°C
Boiling point/range:	No data available at this time.
Density:	No data available
Vapor pressure:	No data available

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9. PHYSICAL AND CHEMICAL PROPERTIES

Evaporation rate:	No data available
Vapor density:	No data available
Solubility (in water):	Soluble
Flash point:	Not determined
Autoignition temperature:	Not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Polymerization:	None under normal processing.
Hazardous decomposition products:	Chloride/Hydrochloric acid, Nitrogen oxides (NOx)/ammonia/CN-
Materials to avoid:	Strong oxidising agents
Conditions to avoid:	Exposure to air or moisture over prolonged periods.

11. TOXICOLOGICAL INFORMATION

Product Information

Acute toxicity

Chemical Name

2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE

RTECS Number:

XF8100000

Selected LD50s and LC50s

Not Determined

Chronic toxicity:

Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.

Local effects:

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Specific effects:

May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.

Primary irritation:

No data is available on the product itself.

Carcinogenic effects:

No data is available on the product itself.

Mutagenic effects:

No data is available on the product itself.

Reproductive toxicity:

No data is available on the product itself.

12. ECOLOGICAL INFORMATION

Mobility:

No data available

Bioaccumulation:

No data available

Ecotoxicity effects:

No data available

Aquatic toxicity:

May cause long-term adverse effects in the aquatic environment.

Chemical Name

2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE

U.S. DOT - Appendix B - Marine Pollutant

Not Listed

U.S. DOT - Appendix B - Severe Marine Pollutants

Not Listed

United Kingdom - The Red List:

Not Listed

Chemical Name

2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE

Germany VCI (WGK)

Not Listed

World Health Organization (WHO) - Drinking Water

Not Listed

Ecotoxicity - Fish Species Data

Not Listed

Chemical Name

2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE

Ecotoxicity - Freshwater Algae Data

Not Listed

Ecotoxicity - Microtox Data

Not Listed

Ecotoxicity - Water Flea Data

Not Listed

Chemical Name	EPA - ATSDR Priority List	EPA - HPV Challenge Program Chemical List	California - Priority Toxic Pollutants
2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE	Not Listed	Not Listed	Not Listed

Chemical Name	California - Priority Toxic Pollutants	California - Priority Toxic Pollutants
2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE	Not Listed	Not Listed

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

Contaminated packaging:

Do not re-use empty containers

14. TRANSPORT INFORMATION

DOT:**Proper shipping name:**

Not Regulated

U.S. DOT - Appendix A Table 1 - Reportable Quantities

Not Listed

TDG (Canada):**WHMIS hazard class:**

D2b toxic materials

IMDG/IMO**IMDG - Hazard Classifications**

Not Applicable

U.S. DOT - Appendix B - Marine Pollutant

Not Listed

U.S. DOT - Appendix B - Severe Marine Pollutants

Not Listed

IMO-labels:

15. REGULATORY INFORMATION

International Inventories

2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE

TSCA

Listed

Canada DSL Inventory List

Listed

AICS

Listed

IECSC

Listed

EU EINECS List

Listed

Japan ENCS

Listed

Korea KECL

Listed

Philippines PICCS

Listed

U.S. regulations:

15. REGULATORY INFORMATION

Chemical Name	California Proposition 65:	Massachusetts Right to Know List:	New Jersey Right to Know List:	Pennsylvania Right to Know List:
2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE	Not Listed	Not Listed	Not Listed	Not Listed

Chemical Name	Florida Substance List:	Rhode Island Right to Know List:	Illinois Toxic Air Contaminants	Connecticut Hazardous Air Pollutants
2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE	Not Listed	Not Listed	Not Listed	Not Listed

Chemical Name	SARA 313 Emission Reporting/Toxic Release of Chemicals:	CERCLA/SARA Section 302 Extremely Haz:	NTP:	IARC:
2,3,5-TRIPHENYL-2H-TETRAZOLIUM CHLORIDE	Not Listed	Not Listed	None	None

SARA 313 Notification: The above is your notification as to the SARA 313 listing for this product(s) pursuant to Section 313 of Title III of the Superfund Ammendments and Reauthorization Act of 1986 and 40 CFR Part 372.

If you are unsure if you are subject to the reporting requirements of Section 313, or need more information, please call the EPA Emergency Planning and Community Right-To-Know Information Hotline: (800) 535-0202 or (202) 479-2499 (in Washington, DC or Alaska).

State Notification: The above information is your notice as to the Right-to-Know listings of the stated product(s). Individual states will list chemicals for a variety of reasons including, but not limited to, the compounds toxicity; carcinogenic, tumorigenic and/or reproductive hazards; and the compounds environmental impact if accidentally released.

16. OTHER INFORMATION

Prepared by: Health & Safety

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End of Safety Data Sheet