

MATERIAL SAFETY DATA SHEET

2,3,5-TRIPHENYL TETRAZOLIUM CHLORIDE AR (TTC) (Tetrazolium Salt) MSDS CAS : 298-96-4

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

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

CAS#: 298-96-4

C.I. No.: Not available.

Synonym : Tetrazolium Salt.

Chemical Name: Not available.

Chemical Formula: C₁₉H₁₅ClN₄

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet:

Company identification: **OXFORD LAB FINE CHEM LLP**
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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
2,3,5-TRIPHENYL TETRAZOLIUM CHLORIDE AR	298-96-4	99%

Section 3: Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1999/45

Classification : Xi; R36/37/38

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation - Category 3 - Warning (CLP : STOT SE 3) H335
Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4) H332
Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302
Acute toxicity, dermal - Category 4 - Warning (CLP : Acute Tox. 4) H312
Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315
Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

Section 4: First Aid Measures

Description of first aid measures

Inhalation

Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

Skin contact

Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). If skin irritation occurs : Get medical advice. Wash with plenty of soap and water. Wash contaminated clothing before reuse.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists : Get medical advice.

Ingestion :

Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms relating to use : Repeated exposure to this material can result in absorption through skin causing significant health hazard.

Section 4: First Aid Measures (Continued)

Danger of serious damage to health by prolonged exposure through inhalation.

Swallowing a small quantity of this material will result in serious health hazard.

Causes serious eye irritation.

Causes skin irritation. May cause respiratory irritation.

Indication of any immediate medical attention and special treatment needed

General information: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Section 5: Fire and Explosion Data

Extinguishing media

Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

Surrounding fires : Use water spray or fog for cooling exposed containers.

Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.

Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, Including respiratory protection.

Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection.
Ventilate area.

For non-emergency personnel : Evacuate unnecessary personnel.

Section 6: Accidental Release Measures (Continued)

Environmental precautions

Environmental precautions

: Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

Methods and materials for containment and cleaning up

Clean up methods : On land, sweep or shovel into suitable containers. Minimize generation of dust.
Store away from other materials.

Section 7: Handling and Storage

Precautions for safe handling

Handling

: Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Technical protective measures

: Provide good ventilation in process area to prevent formation of Vapor.

Special precautions

: Avoid breathing dust, fume, gas, mist, vapours, spray.

Conditions for safe storage, including any incompatibilities

Storage

: Keep only in the original container in a cool, well ventilated place. Keep container closed.

Storage - away from

: Strong bases. Strong acids. Sources of ignition. Direct sunlight.

Specific end uses

Specific end use(s)

: None.

Section 8: Exposure Controls/Personal Protection

Personal protection

• Respiratory protection

: Avoid all unnecessary exposure.
: In case of insufficient ventilation, wear suitable respiratory equipment.

• Hand protection

: Wear protective gloves.

• Skin protection

: Wear suitable protective clothing.

• Eye protection

: Chemical goggles or safety glasses.

• Others

: When using, do not eat, drink or smoke.

Section 8: Exposure Controls/Personal Protection (Continued)

Control parameters

Occupational Exposure Limits : No data available.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state at 20 °C	: Solid.
Color	: Buff coloured powder
Odor	: Odourless
Odor threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: 235 °C
Decomposition point [°C]	: No data available.
Critical temperature [°C]	: No data available.
Auto-ignition temperature [°C]	: No data available.
Flammability (solid, gas)	: No data available.
Flash point [°C]	: No data available.
Boiling point [°C]	: No data available.
Initial boiling point [°C]	: No data available.
Final boiling point [°C]	: No data available.
Evaporation rate	: No data available.
Vapour pressure [20°C]	: No data available.
Vapour pressure mm/Hg	: No data available.
Vapour density	: 11,5
Density [g/cm ³]	: No data available.
Relative density, gas (air=1)	: No data available.
Relative density, liquid (water=1)	: No data available.
Solubility in water [% weight]	: Soluble in water
Solubility in water	: No data available.
Log Pow octanol / water at 20°C	: No data available.
Solubility	: No data available.
Viscosity at 40°C [mm ² /s]	: No data available.
Molecular Weight	: 334.81

Section 9: Physical and Chemical Properties (Continued)

Other information

Explosive properties	: No data available.
Explosion limits - upper [%]	: No data available.
Explosion limits - lower [%]	: No data available.
Oxidizing properties	: No data available.

Section 10: Stability and Reactivity Data

Reactivity

Reactivity : Not established.

Chemical stability

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous reactions : Not established.

Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

Incompatible materials

Materials to avoid : Strong acids. Strong bases.

Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

Section 11: Toxicological Information

Information on toxicological effects

Acute toxicity

• Inhalation	: Harmful if inhaled.
• Dermal	: Harmful in contact with skin.
• Ingestion	: Harmful if swallowed.
Corrosion	: Based on available data, the classification criteria are not met.

Section 11: Toxicological Information (Continued)

Irritation	: Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation.
Sensitization	: Based on available data, the classification criteria are not met.
Mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Toxic for reproduction	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

Section 12: Ecological Information

Toxicity

Toxicity information : Not established.

Persistence – degradability

Persistence - degradability : Biodegradable.

Bio accumulative potential

Bio accumulative potential : Not established.

Mobility in soil

Mobility in soil : Not established.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

Other adverse effects

Environmental precautions: Avoid release to the environment.

Section 13: Disposal Considerations

Waste treatment methods

General: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Section 14: Transport Information

Land transport (ADR-RID)

General information : Not regulated.

Sea transport (IMDG)

General information : Not regulated.

Air transport (ICAO-IATA)

General information : Not regulated.

Section 15: Other Regulatory Information

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

Safety, health and environmental: Ensure all national/local regulations are observed.

**Regulations/legislation specific for
The substance or mixture**

REACH Restrictions - Annex XVII: The components of this product are not subject to restrictions.

REACH Authorization - Annex XIV: The components of this product are not subject to authorization.

Chemical Safety Assessment

Chemical Safety Assessment: It has not been carried out.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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