

Material Safety Data Sheet

Version 3.1
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Hexadecylpyridinium chloride monohydrate

Product Number : 52349
Brand : Fluka

Company : Sigma-Aldrich Canada, Ltd
2149 Winston Park Drive
OAKVILLE ON L6H 6J8
CANADA

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Cetylpyridinium chloridemmonohydrate

Formula : $C_{21}H_{38}ClN \cdot H_2O$

Molecular Weight : 358.00 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
cetylpyridinium chloride monohydrate			
6004-24-6	204-593-9	-	-

3. HAZARDS IDENTIFICATION**Emergency Overview****Target Organs**

Nerves.

WHMIS Classification

D1A	Very Toxic Material Causing Immediate and	Highly toxic by inhalation
D1B	Serious Toxic Effects	Toxic by ingestion
D2B		Moderate eye irritant

HMIS Classification

Health hazard: 3
Flammability: 0
Physical hazards: 0

Potential Health Effects

Inhalation May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin May be harmful if absorbed through skin. Causes skin burns. May be fatal if

Eyes
Ingestion

absorbed through skin.
Causes eye burns.
Toxic if swallowed. Causes burns.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form flakes

Colour beige

Safety data

pH 5.0 - 5.4 at 20 °C (68 °F)

Melting point 81 - 84 °C (178 - 183 °F)

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility soluble

Partition coefficient:
n-octanol/water log Pow: 1.71

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

acids, Acid anhydrides, Acid chlorides, Strong oxidizing agents

Hazardous decomposition products

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

Thermal decomposition

234 °C (453 °F)

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

LD50 Oral - rat - 200 mg/kg

Inhalation: no data available

Irritation and corrosion

Skin - rabbit - Severe skin irritation

Eyes - rabbit - Severe eye irritation

Sensitisation

no data available

Chronic exposure

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.

Signs and Symptoms of Exposure

Cough, Shortness of breath, Headache, Nausea, Vomiting

Potential Health Effects

Inhalation	May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	May be harmful if absorbed through skin. Causes skin burns. May be fatal if absorbed through skin.
Eyes	Causes eye burns.
Ingestion	Toxic if swallowed. Causes burns.
Target Organs	Nerves.,

Additional Information

RTECS: UU5075000

12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)**

Biodegradability

Ecotoxicity effects

Toxicity to fish LC50 - Cyprinus carpio (Carp) - 0.01 mg/l - 96 h

Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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

13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

UN-Number: 2811 Class: 6.1 Packing group: II
Proper shipping name: Toxic solids, organic, n.o.s. (cetylpyridinium chloride monohydrate)
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN-Number: 2811 Class: 6.1 Packing group: II EMS-No: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (cetylpyridinium chloride monohydrate)
Marine pollutant: No

IATA

UN-Number: 2811 Class: 6.1 Packing group: II
Proper shipping name: Toxic solid, organic, n.o.s. (cetylpyridinium chloride monohydrate)

15. REGULATORY INFORMATION**DSL Status**

All components of this product are on the Canadian DSL list.

WHMIS Classification

D1A	Very Toxic Material Causing Immediate and	Highly toxic by inhalation
D1B	Serious Toxic Effects	Toxic by ingestion
D2B		Moderate eye irritant

16. OTHER INFORMATION**Further information**

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