



Specialized in chemicals

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Material Safety Data Sheet

Isothiazolinone

Section 1: Chemical Product and Company Identification

Molecular formula:C₄H₄CINOS

CAS Nr: 26172-55-4

Molecular weight: 149.6

Synonyms: CMIT/MIT,Kothon

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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	%By Weight
Isothiazolinones	26172-55-4	14%

Section 3: Hazards Identification

Inhalation

Inhalation of vapor or mist can cause the following:- irritation of nose and throat

Eye Contact

Material can cause the following:- corrosion to eyes - irreversible eye injury

Skin Contact

Skin irritation effects can be delayed for hours. Material can cause the following:- corrosion to the skin - burns

Ingestion Material is harmful if swallowed.

Section 4: First Aid Measures

Inhalation

Move subject to fresh air.

Eye Contact

IMMEDIATELY flush eyes with a large amount of water for at least 15 minutes. Get prompt medical attention.

Skin Contact

Wash affected skin areas thoroughly with soap and water immediately after exposure. Remove and wash contaminated clothing thoroughly. Do not take clothing home to be laundered. Discard contaminated shoes, belts and other articles made of leather. Get prompt medical attention.

Ingestion

If swallowed, give 2 glasses of water to drink. IMMEDIATELY see a physician. Never give anything by mouth to an unconscious person.

Note to Physician

MATERIAL IS CORROSIVE. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage.

Section 5: Fire and Explosion Data

Flash point not applicable

Low explosion limit not applicable

Upper explosion limit not applicable

Suitable extinguishing media:

Use extinguishing media appropriate for surrounding fire.

Specific hazards during fire fighting:Combustion generates toxic fumes of the following: nitrogen oxides (NOx) sulfur oxides

Special protective equipment for fire-fighters:Wear self-contained breathing apparatus and protective suit.

Further information:Cool containers / tanks with water spray.

Minimize exposure.

Do not breathe fumes.

Contain run-off.

Section 6: Accidental Release Measures

Personal Protection

Wear a NIOSH approved (or equivalent) respirator (with organic vapor/ acid gas cartridge and a dust/mist filter) during spill clean-ups and deactivation of this material. MATERIAL IS CORROSIVE. Protective clothing, including chemical splash goggles, nitrile or butyl rubber full length gloves, rubber apron, or clothing made of nitrile or butyl rubber, and rubber overshoes must be worn during spill clean-ups and deactivation of this material. If material comes in contact with the skin during cleanup operations, IMMEDIATELY remove all contaminated clothing and wash exposed skin areas with soap and water. See SECTION 4, First Aid Measures, for further information.

Procedures

WARNING: KEEP SPILLS AND CLEAN-UP RESIDUALS OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. Absorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water. Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deactivate any residual active ingredient. Let stand for 30 minutes. Flush the spill area with copious amounts of water to chemical sewer (if in accordance with local procedures, permits and regulations). DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material. See SECTION 13, "Disposal Considerations", for information regarding the disposal of contained materials.

Section 7: Handling and Storage

Storage Conditions

The maximum recommended storage temperature for this material is 550C/131F. The minimum recommended storage temperature for this material is 10C/32F. Store in a well ventilated area. Do not store this material in containers made of the following: steel.

Handling Procedures

This material is corrosive. See section 8, Exposure Controls/Personal Protection, prior to handling.

Section 8: Exposure Controls/Personal Protection

Respiratory Protection

Typical use of this material does not result in workplace exposures that exceed the exposure limits listed in the "Exposure Limit Information" Section. For those special workplace conditions where the listed exposure limits are exceeded, a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed. For concentrations up to 10 times the exposure limit, wear a properly fitted NIOSH approved (or equivalent) half-mask or full facepiece air purifying respirator equipped organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters. For those unlikely situations where exposure may greatly exceed the listed exposure limits (i.e. greater than 10-fold), or in any emergency situation, wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode or a full facepiece airline respirator in the pressure demand mode with emergency escape provision. See SECTION 6, Accidental Release Measures, for respirator and protective clothing requirements for spill clean-up and decontamination of this material.

Eye Protection

Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed

Hand Protection

NOTE: Material is a potential skin sensitizer. The glove(s) listed below provide protection against permeation: - Nitrile - Butyl rubber Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

Other Protection

Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.

Engineering Controls (Ventilation)

Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Other Protective Equipment

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Section 9: Physical and Chemical Properties

Appearance Form liquid Colour Pale Yellow to Amber

pH 1.0 - 3.0

Boiling point/boiling range 100 ° C (212.00 ° F) Water

Melting point/range -33° C (-27.4° F)

Flash point Noncombustible

Lower explosion limit not applicable

Upper explosion limit not applicable

Vapour pressure 0.0027 mmHg Component No. 1

Relative vapour density 0.6

Water solubility completely soluble

Relative density 1.29-1.31g/ml

Viscosity, dynamic 16.000 mPa.s at 25° C (77° F)

Percent volatility 60 - 64 % Water

NOTE: The physical data presented above are typical values and should not be construed as a specification.

Section 10: Stability and Reactivity Data

Instability This material is considered stable under specified conditions of storage, shipment and/or use. See section 7, Handling And Storage, for specified conditions.

Hazardous Decomposition Products Thermal decomposition may yield the following: - sulfur dioxide - oxides of nitroge

Incompatibility

Avoid contact with the following: - oxidizing agents - reducing agents - amines - mercaptans

Section 11: Toxicological Information

Acute Data

Acute Oral LD50, rat: 457mg/kg
Acute Dermal LD50, rabbit: 660mg/kg
Skin Irritation - rabbit: Corrosive (product)
Eye Irritation - rabbit: Corrosive (product)
Acute 4 Hr Inhalation - rat: 0.33 mg/L Active ingredient

Carcinogenicity Data

Non-carcinogenic

Mutagenicity Data

Mutagenicity: collective data indicate non-mutagenic.

Reproductive/Teratology Data

Teratogenicity: not teratogenic.

Sensitization Data

Sensitization: skin sensitizer.

Section 12: Ecological Information

Elimination information (persistence and degradability) Biodegradability Biodegradation (aquatic metabolism): CAS # 26172-55-4 t 1/2 anaerobic = 4.8 hr, CAS # 26172-55-4 t 1/2 aerobic = 17.3 hr, CAS # 2682-20-4 t 1/2 aerobic = 9.1 hr

Physico-chemical removability

Activated Sludge Respiration Inhibition EC50: 4.5 mg/L ai

Ecotoxicity effects Toxicity to fish LC50 Oncorhynchus mykiss (rainbow trout) 96 h 0.19 mg/l Active ingredient

Toxicity to fish LC50 Lepomis macrochirus (Bluegill sunfish) 96 h 0.28 mg/l Active ingredient Toxicity to algae

EC50 Marine algae (Skeletonema costatum) 0.003 mg/l Active ingredient Toxicity to algae EC50 Algae

(Selenastrum capricornutum) 0.018 mg/l Active ingredient Toxicity to aquatic invertebrates EC50 Daphnia

magna 48 h 0.16 mg/l Active ingredient

Section 13: Disposal Considerations

Waste Classification: D002 When a decision is made to discard this material as supplied, it is classified as a RCRA hazardous waste with the characteristic of corrosivity. Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations. (See 40 CFR 268) All local/national regulation should be followed

Section 14: Transport Information

Proper shipping name Corrosive liquids, toxic, n.o.s. (5-Chloro-2-methyl-4isothiazolin-3-one)

UN-Number UN 2922

Class 8 (6.1)

Packing group II

Section 15: Other Regulatory Information

Label Classification and labeling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments (2001/60/EC and 2006/8/EC).

Hazard symbol and Indication of danger

C

Corrosive



N

Dangerous for the environment



Contains:

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

R-phrase(s) R20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R34 Causes burns. R43 May cause sensitization by skin contact. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S-phrase(s) S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S57 Use appropriate container to avoid environmental contamination. S60 This material and its container must be disposed of as hazardous waste. For professional users only. EU. EINECS (EINECS): This product satisfies all the requirements of the European Inventory of Existing Chemical Substances (EINECS). US. Toxic Substances Control Act (TSCA): This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from U.S. Toxic Substances Control Act (TSCA) Inventory listing requirements

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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