

Date of issue: 12/03/2018 Date of revision: 12/01/2021

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: Tin(IV) chloride, 5-hydrate SDS No. : 7840E-3 Details of the supplier of the safety data sheet Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD. Address: 3-1, Honmachibashi, Chuo-ku,Osaka ,JAPAN Division: Safety Management Dept. of Chemicals Telephone number: +81-6-6946-8061 FAX: +81-6-6946-1607 e-mail address: kagakuhinanzenkanri@kishida.co.jp 2. Hazards identification GHS classification and label elements of the product Classification of the substance or mixture **HEALTH HAZARDS** Acute toxicity (Inhalation): Category 2 Skin corrosion/irritation: Category 1 Serious eye damage/eye irritation: Category 1 Specific target organ toxicity - single exposure: Category 3 (Respiratory tract irritation) Specific target organ toxicity - repeated exposure: Category 1(respiratory apparatus) ENVIRONMENT HAZARDS Hazardous to the aquatic environment (Acute): Category 2 (Note) GHS classification without description: Not classified/Classification not possible Label elements Signal word: Danger HAZARD STATEMENT Fatal if inhaled Causes severe skin burns and eye damage Causes serious eye damage May cause respiratory irritation Causes damage to organs through prolonged or repeated exposure(respiratory apparatus) Toxic to aquatic life PRECAUTIONARY STATEMENT Prevention Avoid release to the environment. Do not breathe dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation wear respiratory protection. (as specified by the manufacturer/supplier or the competent authority.) Use only outdoors or in a well-ventilated area. Wash contaminated parts thoroughly after handling. Wear protective gloves, protective clothing or face protection. Wear eye protection/face protection. Do not eat, drink or smoke when using this product.



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Response

Get medical advice/attention if you feel unwell. Call a POISON CENTER or doctor/physician if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Storage Store in a well-ventilated place. Keep container tightly closed. Disposal

Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection: Substance Ingredient name:Tin(IV) chloride, 5-hydrate Content (%):95(min) Chemical formula:SnCl4•5H2O Chemicals No, Japan:1-260 CAS No.:10026-06-9 MW:350.60 Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures General measures Get medical attention/advice if you feel unwell. IF INHALED Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN (or hair) Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. IF IN EYES 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/attention. IF SWALLOWED Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture



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Containers may explode when heated. Fire may produce irritating, corrosive and/or toxic gases.
Advice for firefighters
Specific fire-fighting measures
Evacuate non-essential personnel to safe area.
Special protective equipment and precautions for fire-fighters
Wear fire/flame resistant/retardant clothing.
Wear protective gloves/protective clothing/eye protection/face protection.
Firefighters should wear self-contained breathing apparatus with full face peace operated positive pressure mode.

6. Accidental release measures
Personnel precautions, protective equipment and emergency procedures
Ventilate area until material pick up is complete.
Wear proper protective equipment.
Environmental precautions
Personnel precautions

Prevent spills from entering sewers, watercourses or low areas.

Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident

Collect spillage.

7. Handling and storage

Precautions for safe handling Preventive measures (Exposure Control for handling personnel) Do not breathe dust/fume/gas/mist/vapors/spray. (Protective measures against fire and explosion) Keep away from heat/sparks/open flames/hot surfaces. - No smoking. (Exhaust/ventilator) Exhaust/ventilator should be available. (Safety treatments) Avoid contact with skin. Avoid contact with eyes. Safety Measures Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing or face protection. Wear eye protection/face protection. When using do not eat, drink or smoke. Any incompatibilities See "10.Stability and Reactivity" Advice on general occupational hygiene Wash contaminated parts thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Storage Conditions for safe storage Keep container tightly closed. Store in a cool, dry place. Do not store in direct sunlight. Keep under lock and key. Container and packaging materials for safe handling Glass

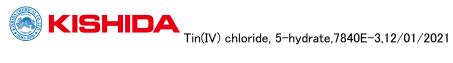


Polyethylene

8. Exposure controls/personal protection
Control parameters
Adopted value
(Tin(IV) chloride, 5-hydrate)
ACGIH(1992) TWA: 2mg-Sn/m3(I) (Pneumoconiosis)
OSHA-PEL
(Tin(IV) chloride, 5-hydrate)
TWA: 2mg-Sn/m3
Exposure controls
Appropriate engineering controls
Do not use in areas without adequate ventilation.
Eye wash station should be available.
Washing facilities should be available.
Individual protection measures
Respiratory protection
Wear respiratory protection.
Hand protection
Wear protective gloves.
Eye protection
Wear eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties Physical state: Crystalline lump Color: White to grayish white Odor: Slightly pungent odor Melting point/Freezing point: 60°C Boiling point or initial boiling point data is not available. Boiling range data is not available. Flammability (gases, liquids and solids) data is not available. Lower and upper explosion limit/flammability limit data is not available. Flash point data is not available. Auto-ignition temperature data is not available. Decomposition temperature data is not available. pH data is not available. Kinematic viscosity data is not available. Solubility: Solubility in water: Easily soluble n-Octanol/water partition coefficient data is not available. Vapor pressure data is not available. Density and/or relative density data is not available. Relative vapor density (Air=1) data is not available. No Particle characteristics data is not available.



0. Stability and Reactivity	
Reactivity	
Not available.	
Chemical stability	
Hygroscopic (absorbs moisture from the air).	
Possibility of hazardous reactions	
(As tin(IV) chloride, anhydrous)	
Reacts violently with water and moist air. This produces corrosive hydrogen chloride.	
Reacts with turpentine, alcohols and amines. This generates fire and explosion hazard.	
Attacks many metals, some forms of plastic, rubber and coatings. (ICSC 0953)	
Conditions to avoid	
Contact with incompatible materials.	
Contact with fire source.	
Incompatible materials	
Water, Turpentine, Alcohols, Amines	
Hazardous decomposition products	
Hydrogen chloride	
1. Toxicological Information	
Information on toxicological effects	
Acute toxicity	
Acute toxicity (Inhalation)	
[Company proprietary data]	
(Tin(IV) chloride, 5-hydrate)	
(As tin(IV) chloride, anhydrous) vapor: rat LC50=1.35mg/L/4hr (SIDS, 2009)	
Irritant properties	
Skin corrosion/irritation	
[Company proprietary data]	
(Tin(IV) chloride, 5-hydrate)	
(As tin(IV) chloride, anhydrous) rabbit corrosive (SIDS, 2009)	
Serious eye damage/irritation	
[Company proprietary data]	
(Tin(IV) chloride, 5-hydrate)	
(As tin(IV) chloride, anhydrous) rabbit severe corneal opacity (SIDS, 2009)	
Allergenic and sensitizing effects data is not available.	
Mutagenic effects data is not available.	
Carcinogenic effects data is not available.	
Reproductive toxicity data is not available.	
STOT	
STOT-single exposure	
[cat.3 (resp. irrit.)]	
[Company proprietary data]	
(Tin(IV) chloride, 5-hydrate)	
Respiratory tract irritation ((As tin(IV) chloride, anhydrous) SIDS, 2009)	
STOT-repeated exposure	
STOT-repeated exposure [cat.1]	
STOT-repeated exposure [cat.1] [Company proprietary data]	
STOT-repeated exposure [cat.1]	



12. Ecological Information
Ecotoxicity
Aquatic toxicity
Toxic to aquatic life
Hazardous to the aquatic environment (Acute)
[Company proprietary data]
(Tin(IV) chloride, 5-hydrate)
(As tin(IV) chloride, anhydrous) 8.8mg SnCl4/L (calculated from degraded HCL conc. based on
SIDS, 2007)
Persistence and degradability
Persistence and degradability data is not available.
Bioaccumulative potential
Bioaccumulative potential data is not available.
Mobility in soil
Mobility in soil data is not available.
Other adverse effects
Ozone depleting chemical data is not available.

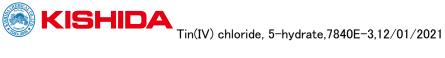
13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging Waste treatment methods

Avoid release to the environment (- if this is not the intended use). Dispose of contents/container in accordance with local/national regulation.

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14	Transport	Information
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UN No. or ID No.: 2440 UN Proper Shipping Name : STANNIC CHLORIDE PENTAHYDRATE Class or division (Transport hazard class): 8 Packing group : III ERG GUIDE No.: 154 IMDG Code (International Maritime Dangerous Goods Regulations) UN No.: 2440 Proper Shipping Name : STANNIC CHLORIDE PENTAHYDRATE Class or division : 8 Packing group : III IATA Dangerous Goods Regulations UN No.: 2440 Proper Shipping Name : STANNIC CHLORIDE PENTAHYDRATE Class or division : 8 Hazard labels : Corrosive Packing group : III Special provisions No.: A803 Environmental hazards MARPOL Annex III - Prevention of pollution by harmful substances Marine pollutants (yes/no) : no MARPOL Annex V - Prevention of pollution by garbage discharge Specific target organ toxicity - repeated exposure: cat.1



Tin(IV) chloride, 5-hydrate

15. Regulatory Information Safety, health and environmental regulations/legislation specific for the substance or mixture Chemicals listed in TSCA Inventory Tin(IV) chloride, 5-hydrate Other regulatory information Ensure this material in compliance with federal requirements and ensure conformity to local regulations.
16. Other information
GHS classification and labelling
Acute Tox. 2: H330 Fatal if inhaled
Skin Corr. 1: H314 Causes severe skin burns and eye damage
Eye Dam. 1: H318 Causes serious eye damage
STOT SE 3: H335 May cause respiratory irritation
STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure
Aquatic Acute 2: H401 Toxic to aquatic life
Reference Book
Globally Harmonized System of classification and labelling of chemicals, (7th revised edition, 2017), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN
IMDG Code, 2018 Edition (Incorporating Amendment 39–18)
IATA Dangerous Goods Regulations (61th Edition) 2020
Classification, labelling and packaging of substances and mixtures (Table 3 ECNO6182012) 2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT) 2020 TLVs and BEIs. (ACGIH)
http://monographs.iarc.fr/ENG/Classification/index.php Supplier's data/information
General Disclaimer
This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.
The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2019).