

Date of issue: 29/02/2016 Date of revision: 20/04/2020

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: Sodium sulfide,9-hydrate SDS No.: 7296E-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 (Oral): Category 3 Skin corrosion/irritation: Category 1 Serious eye damage/eye irritation: Category 1 Specific target organ toxicity - single exposure: Category 2(respiratory apparatus) **ENVIRONMENT HAZARDS** Hazardous to the aquatic environment (Acute): Category 1 (Note) GHS classification without description: Not classified/Classification not possible Label elements Signal word: Danger HAZARD STATEMENT Toxic if swallowed Causes severe skin burns and eye damage Causes serious eye damage May cause damage to organs after single exposure(respiratory apparatus) Very toxic to aquatic life PRECAUTIONARY STATEMENT Prevention Avoid release to the environment. Do not breathe dust/fume/gas/mist/vapors/spray. 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. Response Collect spillage. 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: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Disposal Dispose of contents/container in accordance with local/national regulation.

 Composition/information on ingredients Mixture/Substance selection:

Substance

Ingredient name:Sodium sulfide,9-hydrate Content (%):98(min) Chemical formula:Na2S•9H2O Chemicals No, Japan:1-514 CAS No.:1313-84-4 MW:240.18

Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

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.

Immediately call a POISON CENTER or doctor/physician.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Advice for firefighters

Specific fire-fighting measures

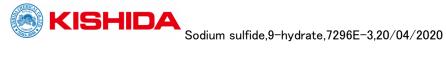
Evacuate non-essential personnel to safe area.

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 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			
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.			
Channe and			

Storage

Conditions for safe storage Keep container tightly closed. Chilled storage. Container and packaging materials for safe handling Glass Polyethylene

8. Exposure controls/personal protection Control parameters 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.



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Hand protection Wear protective gloves. Eye protection Wear eye/face protection.

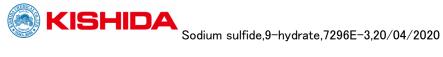
9. Physical and Chemical Properties Information on basic physical and chemical properties Physical state: Crystal Color: Colorless Odor: Characteristic odour pH data is not available. Boiling point or initial boiling point data is not available. Boiling range data is not available. Melting point/Freezing point data is not available. Decomposition temperature data is not available. Flammability (gases, liquids and solids) data is not available. Flash point data is not available. Auto-ignition temperature data is not available. Lower and upper explosion limit/flammability limit data is not available. Vapor pressure data is not available. Relative vapor density (Air=1) data is not available. Density and/or relative density 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. No Particle characteristics data is not available.

10. Stability and Reactivity Reactivity Not available. Chemical stability Deliquescent material. Possibility of hazardous reactions (AS sodium sulfide, anhydride) Decomposes on burning. Decomposes on contact with acids or water. This produces toxic and corrosive gases. This increases fire hazard. The solution in water is a strong base. It reacts violently with acid and is corrosive. Reacts violently with oxidants. (ICSC 1047) Conditions to avoid Contact with incompatible materials. Contact with fire source. Incompatible materials Acids, Oxidizing agents, Water Hazardous decomposition products Sulfur oxides, Sodium compounds



11. Toxicological Information Information on toxicological effects Acute toxicity Acute toxicity (Oral) [Company proprietary data] (Sodium sulfide,9-hydrate) (As Sodium sulfide, anhydride) rat LD50=208 mg/kg rat LD50=254 mg/kg Irritant properties Skin corrosion/irritation [Company proprietary data] (Sodium sulfide,9-hydrate) (As Sodium sulfide,anhydride) Category 1 Serious eye damage/irritation [Company proprietary data] (Sodium sulfide,9-hydrate) (As Sodium sulfide,anhydride) Category 1 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.2] [Company proprietary data] (Sodium sulfide,9-hydrate) (As Sodium sulfide,anhydride) respiratory apparatus STOT-repeated exposure data is not available. Aspiration hazard data is not available.

12. Ecological Information Ecotoxicity Aquatic toxicity Very toxic to aquatic life Aquatic acute toxicity component(s) data [Company proprietary data] (Sodium sulfide,9-hydrate) (As Sodium sulfide,anhydride) Crustace(daphnia) EC50 = 550 μ g/L/48hr 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.



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13. Disposal considerations				
Description of waste residues and information on their safe I	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.	
14. Transport Information				
UN No.: 1849				
Proper Shipping Name :				
SODIUM SULPHIDE, HYDRATED with not less than	30% water			
Class or division : 8				
Packing group : II				
ERG GUIDE No.: 153				
IMDG Code (International Maritime Dangerous Goods Regula	tions)			
UN No.: 1849				
Proper Shipping Name :				
SODIUM SULPHIDE, HYDRATED with not less than	30% water			
Class or division : 8				
Packing group : II				
IATA Dangerous Goods Regulations				
UN No.: 1849				
Proper Shipping Name :				
SODIUM SULPHIDE, HYDRATED with not less than	30% water			
Class or division : 8				
Hazard labels : Corrosive				
Packing group : II				
Environmental hazards				
MARPOL Annex III – Prevention of pollution by harmful su	ubstances			
Marine pollutants (yes/no) : yes				
MARPOL Annex V – Prevention of pollution by garbage di	scharge			
Hazardous to the aquatic environment - acute haza	rd: cat.1			
Sodium sulfide,9-hydrate				
15. Regulatory Information				
Safety, health and environmental regulations/legislation spec	sific for the substance or mixture			
US major regulations				
Chemicals listed in TSCA Inventory				
Sodium sulfide,9-hydrate				
Other regulatory information				

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. 3: H301 Toxic if swallowed Skin Corr. 1: H314 Causes severe skin burns and eye damage Eye Dam. 1: H318 Causes serious eye damage STOT SE 2: H371 May cause damage to organs after single exposure Aquatic Acute 1: H400 Very toxic to aquatic life



Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN IMDG Code, 2018 Edition (Incorporating Amendment 39–18) IATA Dangerous Goods Regulations (60th Edition) 2019 Classification, labelling and packaging of substances and mixtures (table3–1 ECNO6182012) 2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT) 2019 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 2018).