JUNSEI Material safety data sheet

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Catalog Numbers: 39265
Catalog Name: Sodium hydrosulfide 70%
Company Identification:

Junsei Chemical Co., Ltd.
4-16, 4-Chome, Nihonbashi-Honcho, Chuo-ku
Tokyo, 103-0023 JAPAN
EMERGENCY TELEPHONE NUMBER: +81-48-986-6161
Quality Assurance Department
6, 1-Chome, Ohmano-cho, Koshigaya, Saitama 343-0844, JAPAN
FAX: +81-48-989-2787 E-mail: shiyaku-t@junsei.co.jp
Web: http://www.junsei.co.jp/

CREATION DATE: August 26, 2013

SECTION 2 HAZARDS IDENTIFICATION

Physical and chemical hazard

Flammable solids	: Out of category
Pyrophoric solids	: Out of category
Self-heating substances and mixtures	: Category1
Substances and mixtures which, in contact with water, emit flammable gases	: Out of category
Organic peroxides	: Out of category

Human health hazard

Acute toxicity Oral	: Category3
Skin corrosion/Irritation	: Category1A-1C
Serious eye damage/eye irritation	: Category1
Specific target organ systemic toxicity(single exposure)	: Category 2(respiratory organs); Category 3(respiratory tract irritation)

Environmental hazard

Hazardous to the aquatic environment(acute hazard)	: Category1
Hazardous to the aquatic environment(chronic hazard)	: Out of category

Pictograms or symbol

Signal word : Danger
Hazard statement : Self-heating; may catch a fire.
Toxic if swallowed.
Causes severe skin burns and eye damage.

Causes serious eye damage.
May cause respiratory irritation.
Cause damage to organs (respiratory organs).
Very toxic to aquatic life.

Cautions

Safety measurements:

- ・Keep cool. Protect from sunlight.
- ・Do not breathing dust/fume/gas/mist/vapours/spray.
- ・Wash hands thoroughly after handling.
- ・Do not eat, drink or smoke when using this product.
- ・Use only outdoors or in a well-ventilated area.
- ・Avoid release to the environment.
- ・Wear protective gloves/protective clothing/eye protection/face protection.

First-aid measures:

- ・IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
- ・IF ON SKIN (or hair) : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
- ・IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- ・IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- ・IF exposed or concerned : Call a POISON CENTER or doctor/physician.
- ・Wash contaminated clothing before reuse.
- ・Collect spillage.

Storage

- ・Store in a well-ventilated place. Keep container tightly closed.
- ・Store locked up.
- ・Maintain air gap between stacks／pallets.
- ・Store away form other materials.

Disposal

- ・Dispose of contents and containers appropriately in accordance with related regulations.

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

Substance/Mixture : Substance
COMPONENT: Sodium hydrosulfide
SYNONYMS: Sodium bisulfide
CAS NUMBER : 16721-80-5(anh)
US TSCA:inventory : Registration(anh)
EC NUMBER (EINECS): 240-778-0(anh)
JAPAN NUMBER (ENCS): 1-416
PERCENTAGE: (CP) 70+%

SECTION 4 FIRST AID MEASURES

If inhalation : Remove victim to fresh air and keep at rest in a position comfortable for

breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
If on skin : Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower.
If in eyes : Rinse cautiously with water for several minutes.
Remove contact lenses ,if present and easy to do. Continue rinsing.
If eyes irritation persists, get medical advice/attention.
If swallowed : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician.
Potential acute health effects :
Inhalation ; Sore throat. Burning sensation. Shortness of breath. Laboured breathing. Unconciousness.
Skin ; Redness. Pain. Skin burns.
Eyes ; Redness. Pain. Burns.
Ingestion ; Sore throat. Burns in mouth and throat. Abdominal pain. Vomiting. Shock or collapse.
Important signs and symptoms : The substance is corrosive to the eyes, skin and respiratory tract. Inhalation may cause lung oedema. Corrosive on ingestion. The substance hydrolyses rapidly on exposure to moisture releasing H_2S.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing media : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide
Prohibited extinguishing media : No data available.
Particular fire fighting : Move containers form fire area if it can be done without risk, if not possible, apply water form a safe distance to cool and protect surrounding area.
Protection for firefighters : Firefighters should wear protective equipment.

SECTION 6 ACCIDENTAL RELEASE MEASURES

General Information : Use proper personal protective equipment as indicated in Section 8.
Cautions for environment : Avoid release to the rivers, lakes, ocean, groundwater.
Spills/Leak : Absorb spills with absorbent (vermiculite, sand , fuller's earth) and place into a suitable disposal container for later disposal.

SECTION 7 HANDLING AND STORAGE

Handling : Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.
Use only in a chemical fume hood.
Storage : Keep away from sources of ignition.
Store in a cool, dry place. Store in the dark.
Store in a tightly closed container. Store in well-ventilated place.
Keep away from strong oxidants, acids or metals.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls : Use adequate ventilation to keep airborne concentrations low.
Occupational exposure limits

ACGIH (2010) : Not established.
OELs (2012) : Not established.

Personal protective equipment :
Eye Protection : Goggles
Hand Protection : Protective gloves
Skin and body protection : Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection : Wear respiratory protection.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State : Solids or crystals.
Appearance : Colorless～yellow.
Odor : Odor of hydrogen sulfide.
pH : No data available.
Boiling Point : No data available.
Melting Point : No data available.
Flash Point : No data available.
Explosion Limits, lower ～ upper : No data available.
Vapor Pressure : No data available.
Vapor Density (Air = 1) : No data available.
Specific Gravity/Density : No data available.
Solubility in water : No data available.
Octanol/Water Partition Coefficient : No data available.
Autoignition Temperature : No data available.
Decomposition Temperature : No data available.
Molecular Formula : $NaHS \cdot nH_2O$
Molecular Weight : 56.06(anh)

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability : Combustible. It reacts violently with acid and is corrosive. Decomposes on heating. This produces sulfur oxides. Decomposes on contact with water. This produces hydrogen sulfide. Attacks metal. Reacts with strong oxidants. This produces sulfur oxides.
Conditions to Avoid : Contact with open flames, heat, water, moisture, strong oxidants or acids .
Incompatibilities with Other Materials : Strong oxidants, acids or metals.
Hazardous Decomposition Products : Sulfur oxides, hydrogen sulfide.
Hazardous Polymerization : Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity:
Oral : Classified into category3 based on rat LD_{50} value= 96mg/kg(IUCLID(2000)).
Dermal : Not possible to classify because of no data.
Gas : Not applicable (GHS definition).
Vapours : Not possible to classify because of insufficient data.
Dusts and mists : Not possible to classify because of no data.

Skin corrosion/Irritation: Described only irritating as a result of a rabbit examination (IUCLID (2000)). But there is description with corrosive irritant to skin as human impact (HSDB). And also there is description that it was corrosive chemical (HSFS (1999)), it was set as Category 1A-1C.

Serious eye damage/eye irritation: It was described only as irritating as a result of the rabbit examination (IUCLID (2000)). However, we found the description that it is "corrosive irritant to skin" for effect on human body (HSDB), and also we found a description that it was a corrosive chemical (HSFS (1999)). Therefore we classified it as Category 1.

Respiratory sensitization: Not possible to classify because of no data.

Skin sensitization: Not possible to classify because of insufficient data.

Mutagenicity: Not possible to classify because of insufficient data.

Effects on the reproductive system: Not possible to classify because of no data.

Specific target organ systemic toxicity (single exposure): The substance was classified as category 2 (respiratory organs) because it is reported in HSFS(1999) that it has irritant properties to nose, throat and lungs, and it causes shortness of breath and pulmonary edema at higher concentrations. Because there is also a report of the substance showing corrosive properties to skin, eyes and mucosa as effects on humans in HSDB, it was judged that the substance has airway irritant properties and it was classified as category 3(respiratory tract irritation).

Specific target organ systemic toxicity (repeated exposure): Not possible to classify because of insufficient data.

Aspiration hazard: Not possible to classify because of no data.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:

Hazardous to the aquatic environment (acute): Classified into category 1 from 96-hour TLm=0.0071～0.55mg/L of fishes (Fathead minnows) (HSDB).

Hazardous to the aquatic environment (chronic): Toxicity factor is considered to be strong base as aqueous solution, but toxic effect is eased by the buffer action in the environmental water. Therefore we classified it as out of category.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 TRANSPORT INFORMATION

IATA Shipping Name: Sodium hydrosulfide, solid with not less than 25% water of crystallization.
Hazard Class: 8 (Corrosive substance)
UN Number: 2949
Packing Group: Ⅱ

IMO Shipping Name: SODIUM HYDROSULFIDE, SOLID with not less than 25% water of crystallization.
Hazard Class: 8 (CORROSIVE SUBSTANCE)
UN Number: 2949
Packing Group: Ⅱ

RID/ADR Shipping Name: Sodium hydrosulfide, solid with not less than 25% water of crystallization.
Hazard Class: 8 (Corrosive substance)
UN Number: 2949
Packing Group: Ⅱ

SECTION 15 REGULATORY INFORMATION

Fire Service Act
: Not regulated.
Poisonous and Deleterious Substances Control Act
: Not regulated.
Industrial Safety and Health Act
: Article 18-2, Attached Table 9-610(Sodium hydrogensulfide)of Cabinet order.
Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (MSDS required) (Effective from October 1, 2009) : Not regulated.
Ordinance for Enforcement of the Civil Aeronautics Act
: Article 194 in Regulation 8 Corrosive substance
Regulations for the carriage and storage of dangerous goods in ship
: Article 2 No.1 (1) Corrosive substance

Substance Registration :
US TSCA inventory : Registration(anh)
EC number (EINECS) : 240-778-0(anh)
JAPAN number (ENCS) : 1-416
Australia (AICS) : Registration(anh)
Canada(DSL) : Registration(anh)
Korea number (ECL) : KE-05-1193(anh)
China(IECSC) : Registration

SECTION 16 OTHER INFORMATION

REFERENCES:
－The Merck Index 15 edition, Monographs No. 8723
－Chemical Risk Information Platform (CHRIP)
－Information about the status of the implementation of GHS in Japan (ID＝999)
－GHS Classification Guidance for the Japanese Government 2nd revised (March, 2010).
－Hazardous Substances Data Bank (HSDB)
－International Chemical Safety Cards (ICSC) No. 1710

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.
Junsei Chemical Co.,Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.