


Safety Data Sheet (SDS)

Water Dispersion of Antimony Trioxide (STOX-W-60)

| 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION | |
|---|--|
| Substance name(Product name): Company name: Address Charge section Phone number Fax number E-mail address Emergency telephone number Recommended use and restriction on use: | Water Dispersion of Antimony Trioxide (STOX-W-60) NIHON SEIKO CO.,LTD. 3-2 SHIMOMIYABI-CHO SHINJUKU-KU TOKYO 162-0822 JAPAN NIHON SEIKO CO.,LTD. SALES SECTION +81-3-3235-0031 +81-3-3235-0034 mail@nihonseiko.co.jp NIHON SEIKO CO.,LTD. NAKASE REFINERY QUALITY ASSURANCE SECTION +81-79-667-2121 Industrial materials: Coating material, Flame retardant additives, etc. |
| 2. HAZARDS IDENTIFICATION | |
| GHS classification : Health hazards GHS label Hazard pictogram Signal word Hazard statements Precautionary statements Other hazard not applicable to GHS classification hazard: The summary of important signs and assumed emergency: | Carcinogenicity :Category 2 <div style="text-align: center;">  </div> Warning Suspected of causing cancer 【Prevention】 Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. 【Response】 If exposed or concerned: Get medical advice/attention if you feel unwell. 【Storage】 Store locked up. 【Disposal】 Dispose of contents/container in accordance with local/regional/national / international regulations(to be specified). No information. No information. |

| 3.COMPOSITION / INFORMATION ON INGREDIENTS | |
|--|--|
| Substance/Mixture: | Mixture |
| General product description: | 1.Antimony Trioxide 2.Polyvinyl alcohol 3.Water 4.-(Non-disclosure, Not applicable to GHS) |
| Other name: | 1.Diantimony Trioxide 2.Poval 3.- 4.-(Non-disclosure) |
| Chemical property (Chemical formula etc): | 1.Antimony Trioxide Sb ₂ O ₃ 2.Polyvinyl alcohol $ \begin{array}{c} (\text{CH}_2-\text{CH})_n-(\text{CH}_2-\text{CH})_m \\ \qquad \qquad \qquad \\ \text{OH} \qquad \qquad \qquad \text{O} \\ \qquad \qquad \qquad \qquad \\ \qquad \qquad \qquad \qquad \text{C}=\text{O} \\ \qquad \qquad \qquad \qquad \\ \qquad \qquad \qquad \qquad \text{CH}_3 \end{array} $ 3.H ₂ O 4.-(Non-disclosure) |
| CAS number: | 1.Antimony Trioxide 1309-64-4 2.Polyvinyl alcohol 9002-89-5 3.H ₂ O 7732-18-5 4.-(Non-disclosure) |
| Component and its content: | 1.Antimony Trioxide 59.8% 2.Polyvinyl alcohol 0.5% 3.H ₂ O 38.8% 4.-(Non-disclosure) |
| EINECS number: | 1.Antimony Trioxide 215-175-0 2.Polyvinyl alcohol 209-183-3 3.H ₂ O 4.-(Non-disclosure) |
| Impurity and stabilizing additive that contribute to GHS Classification: | As:0.03%, Pb:0.03% |
| 4.FIRST AID MEASURES | |
| Following inhalation: | Move affected person to fresh air. Seek medical attention. |
| Following skin contact: | Wash with water and remove clothes if necessary. |
| Following eye contact: | Flush eyes thoroughly with water, also under eyelids. |
| After ingestion: | Rinse mouth with water. Seek medical attention. |
| Most important symptoms and effects ,both acute and delayed: | No information. |
| Protection of person who do first aid: | No information. |
| Special precaution statement for doctor: | No information. |

| | |
|--|--|
| <p>5.Fire-fighting measure Extinguishing media: Unsuitable extinguishing media: Special hazards arising from the Substance or mixture: Specific fire-fighting: Protection for fire-fighter:</p> | <p>Use fire-fighting measures that suit the environment. The product is not combustible and does not support the combustion. No information. No information Move the product to safe place promptly when it is a fire in the surrounding. If it is non-transferable, sprinkle the container and the circle with water and cool down. Wear suitable protective equipment in fire-fighting.</p> |
| <p>6.Accidental release measures Personal precautions, protective equipment and emergency procedures: Environmental precautions: Methods and material for containment and cleaning up: Prevention of second disaster:</p> | <p>Keep unprotected persons away. It is advised to avoid contact with skin, eyes, and clothing – wear suitable protective equipment. It is advised that in the event of an accidental release the product should be prevented from reaching the sewage system or any water course and penetrating the soil. Dispose of spilled material in accordance with the relevant regulations. If the spilled material in large quantity flows out, contain the spill by using earth fill. Collect the spilled material and residual material at full in closed package. For more information on exposure controls/personal protection or disposal considerations, check section 8 and 13 of this safety data sheet.</p> |
| <p>7.Handling and storage Handling: Technological countermeasure (local ventilation/ General Ventilation etc) Safety precaution Avoid contact Hygiene measure Storage: Safety storage condition Safety packaging material</p> | <p>Dust does not occur in the normal handling. If, however, engaged in dust work, provide a local dust collection system in the places where dust can be generated. and provide dust protective mask in the handling position. Do not handle until all safety precautions have been read and understood. Work by wearing suitable protective equipment. Check section 10. Avoid inhalation or ingestion. General occupational hygiene measures are required to ensure a safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices). No eating, drinking and smoking at the workplace. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home. Do not blow dust off with compressed air. Store in well ventilated dry area with low humidity and sealed state in order to avoid moisture absorption. Establish whether the container conforms test standard on a voluntary basis.</p> |

| | |
|---|---|
| 8.EXPOSURE CONTROLS / PERSONAL PROTECTION(Antimony trioxide) | |
| Engineering controls: | Dust does not occur in the normal handling. If, however, engaged in dust work, ensure appropriate ventilation /exhaustion at machinery and places where dust can be generated. Any deposit of dust which cannot be avoided must be regularly removed using preferably appropriate industrial vacuum cleaners or central vacuum systems. Waste water generated during the production process or cleaning operations should be collected and should preferably be treated in an on-site waste water treatment plant which ensures efficient removal of antimony. |
| Exposure control limits | |
| Effect of over exposure: ACGIH(2012) | 0.5mg/m ³ TLV-TWA (Antimony and compounds, as Sb) |
| Personal protective equipment: | |
| Respiratory protection | Dust protective mask(As appropriate) |
| Hand protection | Protective gloves |
| Eye protection | Protective glasses |
| Skin and body protection | Protective high boots and cloth |
| Special precaution statement | Although the substance is not classified as dangerous to the environment, avoid environmental discharge. |
| 9.PHYSICAL AND CHEMICAL PROPERTIES | |
| Appearance: | |
| Physical state | Liquid |
| Figure | Paste |
| Color | White |
| Odor: | Odorless |
| Odor threshold: | Not applicable as odorless. |
| pH: | No information. |
| Melting point: | No information. |
| Initial boiling point and boiling range: | No information. |
| Flash point: | No information. |
| Evaporation rate: | No information. |
| Flammability (solid, gas): | Non-flammable. |
| Upper/lower flammability or explosive limits: | Non explosive. |
| Vapor pressure: | No information. |
| Vapor density: | No information. |
| Relative density: | 1.2-1.4(20°C) |
| Solubility(ies): | No information. |
| Partition coefficient n-octanol/water: | No information. |
| Auto-ignition temperature: | No information. |
| Decomposition temperature: | Does not decompose if used as intended. |
| Viscosity: | 37 Pa·s |
| Other: | No information. |
| 10.STABILITY AND REACTIVITY(Antimony Trioxide) | |
| Reactivity: | No information. |
| Chemical stability: | Under normal conditions of use and storage, the product is stable. |
| Possibility of hazardous reactions: | Reaction with H ⁻ equivalents releases antimony hydride (stibine, SbH ₃). Hazardous polymerization will not occur. |
| Conditions to avoid: | Avoid dust formation. |

| | |
|-----------------------------------|--|
| Incompatible materials: | Reaction with H ⁻ -equivalents releases antimony hydride (stibine, SbH ₃). Strong acids/bases. Reducing agents. See section 7. |
| Hazardous decomposition products: | Does not decompose if used as intended. |
| Other: | No information. |

11. TOXICOLOGICAL INFORMATION

| | Antimony Trioxide | Polyvinyl alcohol | Water |
|---|--|--|------------------------------|
| Acute Toxicity (Oral): | Not Classified. LD ₅₀ rat > 20,000 mg/kg bw | Not Classified. LD ₅₀ rat > 2,000 mg/kg | Classification not possible. |
| Acute Toxicity (Dermal): | Not Classified. LD ₅₀ rabbit > 8,300 mg/kg bw | Not Classified. LD ₅₀ rat > 2,000 mg/kg | Classification not possible. |
| Acute Toxicity (Inhalation: dust/mist): | Not Classified. LC ₅₀ rat > 5,200 mg/m ³ | Out of category | Out of category . |
| Acute Toxicity (Inhalation: fume/vapors): | Out of category to solids. | Not Classified. | Classification not possible. |
| Skin corrosion/irritation: | Not Classified. Causes mild skin irritation. Especially can cause dermatitis on contact with sweat-damp region over again or prolonged contact. Dermatitis that known as “antimony spots” can cause rash after itchiness. | Not Classified. | Classification not possible. |
| Serious eye danger/irritation: | Not Classified. | Not Classified. | Classification not possible. |
| Respiratory or skin sensitization: | Not Classified. | Classification not possible. | Classification not possible. |
| Germ cell mutagenicity: | Not Classified. | Not Classified. | Classification not possible. |
| Carcinogenicity: | Category 2 Japan Society for Occupational Health: 2B ACGIH: Category A2 EPA: Not classified. NTP: Not classified. EU: Category 2 IARC: Group 2B | Classification not possible. | Classification not possible. |
| Reproductive toxicity: | Not Classified. | Not Classified. | Classification not possible. |
| STOT single exposure: | Not Classified. | Not Classified. | Classification not possible. |
| STOT repeated exposure: | Not Classified. | Not Classified. | Classification not possible. |
| Aspiration hazard: | Classification not possible. | Classification not possible. | Classification not possible. |

12. ECOLOGICAL INFORMATION

| | |
|--------------------------------|----------------------------|
| Ecotoxicity: | No information as mixture. |
| Persistence and degradability: | No information as mixture. |
| Bioaccumulative potential: | No information as mixture. |
| Mobility in soil: | No information as mixture. |
| Hazardous to the ozone layer: | No information. |
| Other: | No information. |

| | |
|---|---|
| 13.DISPOSAL CONSIDERATIONS | |
| Waste from residues: | Dispose of contents in accordance with local/regional/national /international regulations(to be specified). |
| Contaminated container/packing: | Dispose of container in accordance with local/regional/national /international regulations(to be specified). |
| 14.TRANSPOT INFORMATION(Read across from Antimony trioxide.) | |
| International regulation: | |
| UN code | Not applicable.* |
| Proper shipping name | Not applicable. |
| UN Class | Not applicable. |
| Packing group | Not applicable. |
| Marine pollutant | Not applicable. |
| *UN regulation : The special provision SP45 is applicable to the UN number 1549 (Hazard class6.1 and packaging groupIII). It means that antimony sulfides and oxides, which contain not more than 0.5% of arsenic calculated on the total weight, are not subject to these regulations. | |
| 15.REGULATORY INFORMATION | |
| Worldwide chemical inventories: | |
| ENCS(Japan) | 1.Antimony Trioxide 1-543 2.Polyvinyl alcohol 6-682 |
| TSCA(USA) | 1.Antimony Trioxide Listed 2.Polyvinyl alcohol Listed |
| ECL(Korea) | 1.Antimony Trioxide KE-09846 2.Polyvinyl alcohol KE-29060 |
| DSL(Canada) | 1.Antimony Trioxide Listed 2.Polyvinyl alcohol Listed |
| PICCS(Philippines) | 1.Antimony Trioxide Listed 2.Polyvinyl alcohol Listed |
| AICS(Australia) | 1.Antimony Trioxide Listed 2.Polyvinyl alcohol Listed |
| IECSC(China) | 1.Antimony Trioxide Listed 2.Polyvinyl alcohol Listed |
| Other regulatory information: | Follow regulation and law of each country or region. |
| 16. OTHER INFORMATION | |
| Treatment of stated contents: | The contents of this information sheet are based on the data, information available at moments, and may be revised by additional data coming up in future. The precautions mentioned in this sheet are intended for normal use of this material, when use in unusual manner, the proper safety method is required. Read this SDS before use the ingredients. Keep this SDS in your file for your timely reference. The contents of this information sheet are not warranted and the company can accept no liability to any customer or any other person. |
| References: | 1.GHS taiou guideline Edit: Japan Chemical Industry Association Issuance: Japanese Standards Association 2.Antimony Trioxide SDS form of International Antimony Association (i2a) 3.Sodium Antimonate SDS form of International Antimony Association (i2a) 4. 【Kaiteidai3ban】 Kinkyujioukyusochishishin Issuance: Japanese Standards Association |

| | |
|--|---|
| | <p>5.National Institute of Technology and Evaluation (NITE)_ Chemical Risk Information Platform (CHRIP)_ Antimony</p> <p>6.OECD-SIAM(October 14-16. 2012)SIDS Initial Assessment Profile</p> <p>7.National Institute of Technology and Evaluation (NITE)_ Chemical Risk Information Platform (CHRIP)_ Antimony Trioxide</p> <p>8.Saishin dokugekibutsutoriatsukainotebiki jijitsuushinnsya, kouseisyou yakumukyoku anzenka hen</p> <p>9.TRANSPORT OF DANGEROUS GOODS Model Regulations 17th of I en United Nation</p> <p>10.Shokubanoanzen site: GHS taiou model label • model MSDS Jouhou: Antimony(III) oxide Ministry of Health, Labour and Welfare (Japan)</p> <p>11.Sangyouigaku vol.33 1991</p> <p>12. National Institute of Technology and Evaluation (NITE)_ Chemical Risk Information Platform (CHRIP)_Polyvinyl Alcohol</p> |
|--|---|