

Safety Data Sheet (SDS)

Antimony Trisulfide

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Substance name:	Antimony Trisulfide
Product name:	P2, P3, P4, P5
Company name:	NIHON SEIKO CO., LTD.
Address	3-2 SHIMOMIYABI-CHO SHINJUKU-KU TOKYO 162-0822 JAPAN
Charge section	SALES DEPT.
Phone number	+81-3-3235-0031
Fax number	+81-3-3235-0034
E-mail address	mail@nihonseiko.co.jp
Emergency telephone number	NAKASE REFINERY QUALITY ASSURANCE SECTION +81-79-667-2121
Recommended use and restriction on use:	Industrial materials: Lubricant, Fireworks, gunpowder for toy, pseudo cannonball, etc.

2. HAZARDS IDENTIFICATION

GHS classification :	Classification not possible or Not classified
GHS label:	
Hazard pictogram	Not applicable.
Signal word	Not applicable.
Hazard statements	Not applicable.
Precautionary statements	【Prevention】 Not applicable. 【Response】 Not applicable. 【Storage】 Not applicable. 【Disposal】 Not applicable.
Other hazard not applicable to GHS classification hazard:	No information.
The summary of important signs and assumed emergency:	No information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture:	Substance
General product description:	Antimony Trisulfide
Other name:	Diantimony Trisulfide
Chemical property (Chemical formula etc):	Sb ₂ S ₃
CAS number:	1345-04-6
Component and its content:	Sb ₂ S ₃ :98.6%
EINECS number:	215-713-4
Impurity and stabilizing additive that contribute to GHS Classification:	As:0.06%, Pb:0.12%

<p>4.FIRST AID MEASURES</p> <p>Following inhalation:</p> <p>Following skin contact:</p> <p>Following eye contact:</p> <p>After ingestion:</p> <p>Most important symptoms and effects, both acute and delayed:</p> <p>Protection of person who do first aid:</p> <p>Special precaution statement for doctor:</p>	<p>Move affected person to fresh air. If you feel sick, seek medical attention.</p> <p>Wash with water and remove clothes if necessary.</p> <p>Flush eyes thoroughly with water, also under eyelids.</p> <p>Rinse mouth with water. If you feel sick, seek medical attention.</p> <p>No information.</p> <p>No information.</p> <p>No information.</p>
<p>5.Fire-fighting measure</p> <p>Extinguishing media:</p> <p>Unsuitable extinguishing media:</p> <p>Special hazards arising from the Substance or mixture:</p> <p>Specific fire-fighting:</p> <p>Protection for fire-fighter:</p>	<p>Use fire-fighting measures that suit the environment. Water, Fire-extinguishing powder, Carbon dioxide, Sand Halogenated fire extinguishing, Fire-extinguishing foam (May cause fire.)</p> <p>May generate antimony oxide smog and sulfur dioxide in fire emergency. Move the container from fire area, if it can be done without risk.. Wear suitable protective equipment in fire-fighting.</p>
<p>6.Accidental release measures</p> <p>Personal precautions, protective equipment and emergency procedures:</p> <p>Environmental precautions:</p> <p>Methods and material for Containment and cleaning up:</p> <p>Prevention of second disaster:</p>	<p>Avoid formation of dust. Ensure adequate ventilation. Keep unprotected persons away. It is advised to avoid contact with skin, eyes, and clothing – wear suitable protective equipment. Avoid inhalation of dust.</p> <p>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.</p> <p>In any case avoid dust formation. Sweep all spilled material or use an appropriate industrial vacuum cleaner. Collect spilled material in suitable containers or closed plastic bags for recovery or disposal.</p> <p>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</p> <p>Handling:</p> <p>Technological countermeasure (local ventilation/ General Ventilation etc)</p> <p>Safety precaution</p> <p>Avoid contact</p>	<p>Provide a local dust collection system in the places where dust can be generated. Provide dust protective mask in the handling position.</p> <p>Do not handle until all safety precautions have been read and understood. Work by wearing suitable protective equipment.</p> <p>Check section 10.</p>

<p>Hygiene measure</p> <p>Storage:</p> <p>Safety storage condition</p> <p>Safety packaging material</p>	<p>Avoid inhalation or ingestion.</p> <p>General occupational hygiene measures are required to ensure a safe handling of the substance.</p> <p>These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices).</p> <p>No eating, drinking and smoking at the workplace.</p> <p>Wash hands after use.</p> <p>Remove contaminated clothing and protective equipment before entering eating areas.</p> <p>Shower and change clothes at end of work shift.</p> <p>Do not wear contaminated clothing at home. Do not blow dust off with compressed air.</p> <p>Store in well ventilated dry area with low humidity and sealed state in order to avoid moisture absorption.</p> <p>Establish whether the container conforms test standard on a voluntary basis.</p>
<p>8.EXPOSURE CONTROLS / PERSONAL PROTECTION</p>	
<p>Engineering controls:</p> <p>Exposure control limits</p> <p>Effect of over exposure: ACGIH(2024)</p> <p>Personal protective equipment:</p> <p>Respiratory protection</p> <p>Hand protection</p> <p>Eye protection</p> <p>Skin and body protection</p> <p>Special precaution statement</p>	<p>Prevent formation of dust where possible. 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.</p> <p>Waste air is to be released into the atmosphere only when it has passed through suitable dust separators.</p> <p>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.</p> <p>0.5mg/m³ TLV-TWA (Antimony and compounds, as Sb)</p> <p>Dust protective mask(As appropriate)</p> <p>Protective gloves</p> <p>Protective glasses</p> <p>Protective high boots and cloth</p> <p>Avoid environmental discharge.</p>
<p>9.PHYSICAL AND CHEMICAL PROPERTIES</p>	
<p>Appearance:</p> <p>Physical state</p> <p>Figure</p> <p>Color</p> <p>Odor:</p> <p>Melting point:</p> <p>Initial boiling point and boiling range:</p> <p>Flammability:</p> <p>Upper/lower flammability or explosive limits:</p> <p>Flash point:</p> <p>Auto-ignition temperature:</p> <p>Decomposition temperature:</p> <p>pH:</p>	<p>Solid</p> <p>Powder or small massive form</p> <p>Charcoal gray</p> <p>Odorless</p> <p>506°C</p> <p>>600°C</p> <p>No information.</p> <p>No information.</p> <p>No information.</p> <p>No information.</p> <p>No information.</p> <p>No information.</p>

kinematic viscosity: Solubility(ies): Partition coefficient n-octanol/water: Vapor pressure: Relative density: Relative vapour density: Particle characteristics: Other:	No information. 0.000175g/100cc water (18°C) No information. 1.17mmHg(500°C) 4.562g/cm ³ No information. 45 μm pass >80% No information.
10.STABILITY AND REACTIVITY	
Reactivity: Chemical stability: Possibility of hazardous reactions: Conditions to avoid: Incompatible materials: Hazardous decomposition products: Other:	No information. Under normal conditions of use and storage, the product is stable. When heated in the air, it burns with a blue flame and antimony oxide and sulfur dioxide is generated. It decomposes and generates toxic hydrogen sulfide if it meets strong acids. Antimonic acid is generated when dissolved in alkali. Heating Halogen, Strong acids/bases Hydrogen sulfide, Sulfur dioxide, Antimony oxide No information.
11.TOXICOLOGICAL INFORMATION	
Acute Toxicity (Oral): Acute Toxicity (Dermal): Acute Toxicity (Inhalation: dust/mist): Acute Toxicity (Inhalation: fume/vapors): Skin corrosion/irritation: Serious eye danger/irritation: Respiratory or skin sensitization: Germ cell mutagenicity: Carcinogenicity: Japan Society for Occupational Health ACGIH EPA NTP EU IARC Reproductive toxicity: STOT single exposure: STOT repeated exposure: Aspiration hazard: Other:	LD ₅₀ rat >2,000 mg/kg bw LD ₅₀ rat >2,000 mg/kg bw LC ₅₀ rat >5 mg/L/4h Out of category to powder. Classification not possible, because of a lack of information. Classification not possible, because of a lack of information. Classification not possible, because of a lack of information. Classification not possible, because of a lack of information. Not classified as carcinogen. Not classified as carcinogen. Not classified as carcinogen. Not classified as carcinogen. Not classified as carcinogen. Group 2A Classification not possible, because of a lack of information. Classification not possible, because of a lack of information. Classification not possible, because of a lack of information. Classification not possible, because of a lack of information. No information.
12.ECOLOGICAL INFORMATION	
Ecotoxicity: Persistence and degradability: Bioaccumulative potential: Mobility in soil: Hazardous to the ozone layer: Other:	Classification not possible, because of a lack of information. No information. No information. No information. No information. 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 contents in accordance with local/regional/national /international regulations(to be specified).
14.TRANSPOT INFORMATION	
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)	1-567
TSCA(USA)	Listed
ECL(Korea)	KE-01883
DSL(Canada)	Listed
PICCS(Philippines)	Listed
AICS(Australia)	Listed
IECSC(China)	Listed
Other regulatory information:	Follow regulation and low of each country or region.
16. OTHER INFORMATION	
Treatment of stated contents:	<p>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.</p> <p>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.</p> <p>Read this SDS before use the ingredients.</p> <p>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.</p>
References:	<ol style="list-style-type: none"> 1.GHS taiou guideline Edit: Japan Chemical Industry Association Issuance: Japanese Standards Association 2.Antimony Trisulfide SDS form of International Antimony Association (i2a) 3.【Kaiteidai3ban】Kinkyujioukyusochishishin Issuance: Japanese Standards Association 4.National Institute of Technology and Evaluation (NITE)_ Chemical Risk Information Platform (CHRIP) 5.OECD-SIAM (October 14-16. 2012)SIDS Initial Assessment Profile 6. International Antimony Association (i2a) Homepage 7.TRANSPORT OF DANGEROUS GOODS Model Regulations 8.Shokubanoanzen site: GHS taiou model label ・ model MSDS Jouhou: Antimony trisulfide Ministry of Health, Labour and Welfare (Japan) 9.Mukikagakuzensyo IV-4 Issuance: MARUZEN CO., LTD.