Safety Data Sheet (SDS)

Antimony Pentachloride

1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Substance name(Product name):	Antimony Pentachloride
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: Catalyst

2.HAZARDS IDENTIFICATION

GHS classification :

Health hazards	Acute toxicity (Oral)	: Category 4
	Acute Toxicity (Inhalation)	: Category 1
	Skin corrosion / irritation	: Category 1C
	Eye damage / irritation	: Category 1
	Specific target organ toxicity (STOT, single exposure)	: Category 2 (Respiratory organs)
	Specific target organ toxicity (STOT, repeated exposure)	: Category 1 (lungs and cardiovascular system)
Environmental Hazards	Hazardous to the aquatic environment	: Category 1
	Hazardous to the aquatic environment -Long-term:	: Category 1

GHS label:

Hazard pictogram

Signal word: Danger

Hazard statements:

Harmful if swallowed
Fatal if inhaled
Causes severe skin burns and eye damage
May causes damage to organs (Respiratory organs)
Causes damage to organs (lungs and cardiovascular system) through prolonged or repeated exposure
Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

NIHON SEIKO CO., LTD.

Precautionary statements	【Prevention】 Obtain SDS before use. Do not handle until all safety precautions stated have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Wash your 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. 【Response】 If swallowed: Rinse mouth. Immediately call a POISON CENTER/ doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. 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/doctor. If exposed or concerned: Call a POISON CENTER/doctor. Get medical advice/attention if you feel unwell. Wash contaminated clothing before reuse. Collect spillage. 【Storage】 Store in a well-ventilated place. Keep container tightly closed. Store locked up. 【Disposal】 Dispose of contents/container in accordance with local/regional/national /international regulations(to be specified).
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 pentachloride
Other name:	-
Chemical property (Chemical formula etc):	$SbCl_5$
CAS number:	7647-18-9
Component and its content:	98%
EINECS number:	231-601-8
Impurity and stabilizing additive that contribute to GHS Classification:	No information

4.FIRST AID MEASURES

Following inhalation:	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
Following skin contact:	Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Following eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
After ingestion:	Rinse the mouth with plenty of water and induce vomiting if possible. Immediately call a POISON CENTER/doctor.
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.

5.Fire-fighting measure

Extinguishing media:	Dry chemical / Carbon dioxide fire extinguisher The product is not combustible and does not support the combustion.
Unsuitable extinguishing media:	Water.
Special hazards arising from the Substance or mixture:	May generate toxic gas(Cl_2) by decomposition at high temperature.
Specific fire-fighting:	Move containers from fire area if possible.
Protection for fire-fighter:	Wear suitable protective equipment in fire-fighting.

6.Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Evacuate people downwind and prohibit entry by putting ropes around the leaked area to keep unnecessary personnel away.
Environmental precautions:	Do not let the leaked material discharged into rivers. The leaked material should be treated in accordance with relevant laws and regulations.
Methods and material for containment and cleaning up:	Recover spills into a vacant container and flush spill area with plenty of water. Avoid gasification by absorbing the material with inert material such as dry sand.
Prevention of second disaster:	For more information on exposure controls/personal protection or disposal considerations, check section 8 and 13 of this safety data sheet.

7.Handling and storage

Handling:	
Technological countermeasure (local ventilation/ General Ventilation etc.)	Wear proper protective device to avoid inhalation and contact with eyes, skin and clothing. Avoid heat and humidity. Avoid rough handling such as turning over, dropping, impacting or drag the containers. Used empty containers are collected in a fixed place.. Handle in a closed system as much as possible, and install a local exhaust system if it is unavoidable to open.. Avoid this product exposing to air. Avoid contacting with metal containers, pipes, valves, etc. in the atmosphere.
Safety precaution	Do not handle until all safety precautions have been read and underst ood. Work by wearing suitable protective equipment.
Avoid contact	Check section 10.

Hygiene measure	Avoid inhalation or ingestion. General occupational hygiene measures are required to ensure a safe handling of the substance. (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.
Storage:	
Safety storage condition	Avoid to keep this material in a place with high temperature and high humidity, and direct sunlight. Keep container tightly closed and prohibit strictly contact with water. Store in a well-ventilated place. Store locked up.
Safety packaging material	Establish whether the container conforms test standard on a voluntary basis.

8.EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure control limits	
Effect of over exposure:	
ACGIH(2021)	0.5mg/m3 TLV-TWA (Antimony and compounds, as Sb)
Engineering controls:	Use local exhaust in the work area.
Personal protective equipment:	
Respiratory protection	Protective mask (Gas mask for acid gases)
Hand protection	Protective gloves
Eye protection	Protective glasses (Goggles type) / Protective face
Skin and body protection	Protective high boots and cloth
Special precaution statement	Avoid environmental discharge.

9.PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	
Physical state	Liquid
Figure	-
Color	Yellow
Odor:	Irritating odor
Melting point:	2.8 ℃
Initial boiling point and boiling range:	79 ℃ (22mmHg)
Flammability:	Non-flammable.
Upper/lower flammability or explosive limits:	No information.
Flash point:	Non-flammable.
Auto-ignition temperature:	No information.
Decomposition temperature:	No information.
pH:	No information.
kinematic viscosity:	No information.
Solubility(ies):	Occur hydrolysis. Soluble in hydrochloric acid, chloroform, carbon tetrachloride.
Partition coefficient n-octanol/water:	No information.
Vapor pressure:	1mmHg (22.7 ℃)
Relative density:	2.358

Relative vapour density:	No information.
Particle characteristics:	No information.
Other:	No information.

10.STABILITY AND REACTIVITY

Reactivity:	May emit smoke in the air.
Chemical stability:	No information.
Possibility of hazardous reactions:	Decomposes with water to generate irritating and toxic white smoke and hydrogen chloride gas, and changes to antimony oxychloride(SbOCl). Antimony oxide and hydrogen chloride gas are produced by heating and combustion.
Conditions to avoid:	Avoid heating.
Incompatible materials:	No information.
Hazardous decomposition products:	Antimony oxide, Hydrogen chloride gas
Other:	No information.

11.TOXICOLOGICAL INFORMATION

Acute Toxicity (Oral):	LD_{50} rat 1,115 mg/kg
Acute Toxicity (Dermal):	No information.
Acute Toxicity (Inhalation: dust/mist):	No information.
Acute Toxicity (Inhalation: fume/vapors):	LC_{50} rat 41.7ppm/4h
Skin corrosion/irritation:	May cause strong irritation and an ulcer.
Serious eye danger/irritation:	May cause damage of mucous membrane and loss of eyesight.
Respiratory or skin sensitization:	No information.
Germ cell mutagenicity:	No information.
Carcinogenicity:	No information.
Reproductive toxicity:	No information.
STOT single exposure:	May causes damage to organs (Respiratory organs)
STOT repeated exposure:	Causes damage to organs (lungs and cardiovascular system) through prolonged or repeated exposure
Aspiration hazard:	No information.
Other:	No information.

12.ECOLOGICAL INFORMATION

Ecotoxicity:	Hazardous to the aquatic environment: Category 1 Hazardous to the aquatic environment-Long-term: Category 1
Persistence and degradability:	No information.
Bioaccumulative potential:	No information.
Mobility in soil:	May cause soil contamination.
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.
Contaminated container/packing:	Dispose of container in accordance with local/regional/national /international regulations.

14.TRANSPOT INFORMATION

International regulation:	
UN code	1730
Proper shipping name	ANTIMONY PENTACHLORIDE, liquid
UN Class	8

Packing group	Ⅱ
Marine pollutant	Applicable.

15.REGULATORY INFORMATION

Worldwide chemical inventories:	
ENCS(Japan)	1-256
TSCA(USA)	Listed
ECL(Korea)	KE-01879
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:	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.【Kaiteidai3ban】Kinkyujioukyusochishishin Issuance: Japanese Standards Association 3.Shokubanoanzen site: GHS taiou model label・model MSDS Jouhou: Ministry of Health, Labour and Welfare (Japan) 4. SDS of contract manufacturers