

Data Sheet

Specifications

Compound name	Antimony	Antimony trioxide	Antimony trisulfide	Sodium antimonate trihydrate	Sodium antimonate anhydrate	Antimony trichloride	Antimony pentachloride
Chemical formula	Sb	Sb ₂ O ₃	Sb ₂ S ₃	NaSbO ₃ · 3H ₂ O	NaSbO ₃	SbCl ₃	SbCl ₅
CAS Registry number	7440-36-0	1309-64-4	1345-04-6	33908-66-6	15432-85-6	10025-91-9	7647-18-9
EINECS number	231-146-5	215-175-0	215-713-4	251-735-0	239-444-7	233-047-2	—
Existing and New Chemical Substances number	—	1-543	1-567	1-506	1-506	1-256	1-256
UN Dangerous Goods number	2871	1549	1549	1549	1549	1733	1730
TSCA inventory	on	on	on	on	on	on	on
IMDG ICAO/IATA	6.1/III	6.1/III	6.1/III	6.1/III	6.1/III	8/II	8/II
	These regulations are not applicable to antimony oxide, antimony sulfide, sodium antimonate, which contain less than 0.5% Arsenic, except metallic antimony powder.						

Physical and Chemical Properties

Appearance, Character	Powder, Grain, Reglus	White powder	Black powder	White powder	White powder	colorless deliquescence lump	Yellow liquid	
Molecular weight	121.75	291.5	339.7	246.7	192.7	228.1	299.0	
Melting point	630	656	550	>180 (Dehydration)	—	73.4	2.8	
Boiling point	1,380	1,425	1,180	1,427 (Decomposition)	1,427 (Decomposition)	223	140 (70mmHg)	
Vapor pressure	1.66 (800°C)	5 (625°C)	1.17 (500°C)	—	—	13.7 (100.2°C)	1.0 (22.7°C)	
Specific gravity	6.7	5.2	4.6	3.9	4.0	3.1	2.3	
Electrical property	4.3mho/m	Poor	ND	ND	ND	Poor	Poor	
Mohs hardness	3.0	2~2.5	ND	ND	ND	ND	ND	
Solubility	Water	Insoluble	Insoluble	Insoluble	Slightly Soluble (Hot water)	Insoluble	Soluble	Decomposition
	HCl	Insoluble	Soluble	Soluble	Decomposition	Decomposition	Soluble	Soluble
	Alcohol	Insoluble	Insoluble	Insoluble	Insoluble	Insoluble	Soluble	Soluble

*ND:No data

Japanese Regulations

Antimony trioxide, antimony trichloride, antimony pentachloride are nominated as hazardous materials other than pharmaceutical use by Poison and Harmful Substance Control Law (Japanese Law), therefore the sales, uses, handling of these materials shall be conducted in accordance with this law.

Precautions for handling

The materials should only be handled in a well ventilated place. Care should be taken not to inhale the material and a dust respirator should be worn. Wear suitable protection gear while handling material so as to prevent contact with eyes, mouth, and skin. Avoid eating, drinking, and smoking while handling this material. Immediately after working with these material, wash with soap and plenty water. Refer to the Material Safety Data Sheet, which is available on request.