

MATERIAL SAFETY DATA SHEET

"Regulation on Information Forms on Hazardous Substances and Mixtures
(Official Gazette on 13.12.2014 and Official Gazette on 29204) and (EU) 2020/878

Revision Date : 24/05/2023

Print Date : 30-12-2010

Version #: 4

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier	
Trade Name	Antimony Trisulfide (Sb₂S₃)
Synonyms	<i>Stibnite, Antimony(III) Sulphide, Antimonite, Antimony Trisulfide, Antimony Sulfide, Antimonic Sulfide, Antimonous Sulfide, Black Antimony</i>
1.2 Relevant Identified Uses Of The Product And Uses Advised Against	
Relevant Identified Uses	<i>Manufacture of substances, Laboratory chemicals</i>
Uses Advised Against	<i>Food, drug, pesticide or biocidal product</i>
1.3 Details Of The Supplier Of The Safety Data Sheet	
Supplier (Manufacturer)	<i>Özdemir Antimuan Madenleri A.Ş.</i>
Address	<i>İstanbul Yolu 10. Km No: 310 Yenimahalle - Ankara - TÜRKİYE</i>
Phone	<i>+ 90 312 587 10 00</i>
Fax	<i>+ 90 312 587 11 00</i>
1.4 Details Of The Manufacturer Of The Safety Data Sheet	
Supplier (Manufacturer)	<i>Özdemir Antimuan Madenleri A.Ş.</i>
Address	<i>İstanbul Yolu 10. Km No: 310 Yenimahalle - Ankara - TÜRKİYE</i>
Phone	<i>+ 90 312 587 10 00</i>
Fax	<i>+ 90 312 587 11 00</i>
1.5 Emergency Contact	
<i>+ 90 356 275 97 88</i>	



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2. HAZARDS IDENTIFICATION**2.1. Classification According to Regulation***Carc. 2; H351 (inhalation)**Repr. 1A; H360**STOT RE 2; H373**Aquatic Chronic 3; H412***2.2. Label Elements****2.2.1. Labeling According to Regulation****Hazard****Pictograms****Signal Word***Danger***Hazard Statement(s)***H351 Suspected of causing cancer.**H360 May damage fertility or the unborn child.**H373 May cause damage to adrenal gland through prolonged or repeated exposure**H412 Harmful to aquatic life with long lasting effects***General***P102: Keep out of reach of children.***Prevention***P260: Do not breathe dust/fume/gas/mist/vapours/spray.**P264: Wash with water thoroughly after handling.**P271: Use outdoors or in a well-ventilated area.**P270: Do not eat, drink or smoke when using this product.**P271: Use only outdoors or in a well-ventilated area.**P280: Wear appropriate protective equipment for eye and skin exposure.***Response***P301+P330+P331: IF SWALLOWED; Rinse mouth. Do NOT induce vomiting.**P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P306 + P360: IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.***Storage***P405: Store locked up.*

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Disposal

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Supplemental Hazard Information (EU) Statements

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

2.4 Additional Information

No information

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Description Of The Substance**

The compound product

3.2 Hazardous ingredients

Chemical Name	EC NO CAS NO	CONTENT %	CLASSIFICATION CLP
Antimony Trisulfide(Sb ₂ S ₃)	215-713-4 1345-04-6	98-100	Carc. 2; H351 (inhalation) Repr. 1A; H360 STOT RE 2; H373 Aquatic Chronic 3; H412

3.2.1 Additional information

Concentration: Essentially 100 %

Commercially min 65.00 % Sb - max 71.00 % Sb, max 0,15 % As

3.2.2 Additional warnings:

All the explanations for damage related to the subject are given in Chapter 16.

4. FIRST AID MEASURES**4.1 Description of first aid measures****4.1.1 General information**

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1.2 Following inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

4.1.3 Following skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. For minor skin contact, avoid spreading material on unaffected skin.



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4.1.4 Following eye contact

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

4.1.4 Following ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.1.4 Self-protection of the first aider

Take precautions applied to general chemistry

4.1.5 Treat symptomatically.

Treat symptomatically.

4.2 Significant Signs and Implications of Acute and Postdose

In case of inhalation	Exposure to excessive amounts of dust may cause physical irritation to respiratory tract
Skin Based	Burning pain and severe corrosive skin damage.
Damage to the Eye	May cause temporary blindness and severe eye damage.
(Digestion) Ingestion	Low acute toxicity. Ingestion is a minor route of entry for intended use of this product

4.3 First Signs for Medical Intervention and Special Treatment Needs

Apply symptomatic treatment.

5. FIRE FIGHTING MEASURES

a. Fire extinguishers:

Suitable Extinguishing: Carbon dioxide, dry chemical powder or appropriate foam.

Incompatible: None known

Other Explanations: No information

b. Special Losses Resulting from Article or Mixture:

Losses Related to Type Explosion: This material, like most materials in powder form, is capable of

creating a dust explosion. Emits toxic fumes under fire conditions.

Losses related to reactivity: No information

Other Explanations: No information

c. Recommendations for Fire Fighting Squads:

Fire Fighting Instructions: Wear self - contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Protective Equipment for Personnel involved in the fight against fire: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.



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Other Explanations: No information

d. Other informations

No information

6. ACCIDENT AGRICULTURAL PREVENTION**6.1 Personal Precautions, Protective Equipment and Emergency Procedures:**

Exposure controls and personal protective measures as described in section 8.

Protective Equipment	Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Emergency Procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

6.1.1 For Non Emergency Personnel

No data

6.2 Environmental Precautions:

Keep out of waterways

6.3 Methods and Materials for Conservation and Cleaning:

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers.

Collect dust using a vacuum cleaner equipped with HEPA filter. Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

6.4 Other Information:

Comply with local regulations.



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6.5 References to Other Departments:

Information on safe handling is obtained from Chapter 7.
Information on personal protective equipment is given in section
8. Information on liquidation is obtained from Chapter 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Minimize dust generation and accumulation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not get this material on clothing. Do not taste or swallow. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains. Observe good industrial hygiene practices.

7.1.1 Recommendations for General Occupational Hygiene:

Workers should wash their hands before eating, drinking or smoking. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for Safe Storage Including Conflicts:

Technical Measures No information

Storage Conditions Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

Common Storage Terms No information

Incompatible Materials Acids. Strong oxidizing agents

7.2.1 Advice on general occupational hygiene

 No information

7.3 Specific End uses:

 No information

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Permissible Exposure Limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
Antimony Sulfide (CAS 1345-04-6)	PEL	0.5 mg/m ³

US. ACGIH Threshold Limit Values

Material	Type	Value
Antimony Sulfide (CAS 1345-04-6)	TWA	0.5 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
Antimony Sulfide (CAS 1345-04-6)	TWA	0.5 mg/m ³
	IDLH	50 mg/m ³

Appropriate Engineering Controls Ensure adequate ventilation, especially in confined areas.
Ensure that eyewash stations and safety showers are close to the workstation location.



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Personal Protective Equipment

Eye/face protection : Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection : Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Body Protection : Wear appropriate chemical resistant clothing

Environmental exposure controls

Where the employer is eligible to avoid the risk of exceeding the occupational exposure limit values of the product;

- According to the "Regulation on health and safety precautions during work with carcinogenic and mutagenic substances" (RG.-06.08.2013-28730) and

- "Health and Safety Precautions During Chemical Ingredients Study According to the Regulation "(RG-12.08.2013-28733)

Carry out studies that will enable workers to assess risks related to safety and health resulting from substance or mixture.

Ensure that the working environment is well ventilated and cleaned and that appropriate measures taken to avoid exceeding the occupational exposure limit values of the product
Equipment to be used in places where personal protection is required and appropriate protection methods are to be provided in the "Personal Protective Equipments in Workplaces" number 28695 dated 02.07.2013

9. PHYSICAL AND CHEMICAL PROPERTIES**Important health, safety and environmental information****Appearance**

Form/Physical state/color

Powder form, Dark grey, black or silver color

Odor

Odorless

Odor Threshold

Not applicable

Safety relevant basic data

Resolution (g/L)

No data available

Melting Point (°C)

550

pH (20°C)

No data available

Boiling point/range (°C)

1150

Flash Point (°C)closed cup

No data available

Evaporation Rate

No data available

Flammability

No data available

Vapour pressure (kPa) @ 25°C

4,89

Solubility

No data available

Relative Density

No data available

Viscosity @ 20°C (mPas)

No data available

Explosive Properties

Not explosive

Density (g/cm³)

4,56

Molecular Weight (g/mol)

339,72

Oxidizing Properties

Not oxidizing

Note : The above properties are determined according to the methods prescribed in Annex-I Part A of the Annex-I Regulation on Test Methods to be Applied in Determination of the Physico-Chemical, Toxicological and Ecotoxicological Properties of the Materials and Mixtures, or other comparable method.



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10. STABILITY AND REACTIVITY**10.1 Reactivity**

The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Hazardous Decomposition

None under normal use conditions.

10.4 Conditions to Avoid: (The temperature at which hazardous reactions may occur is under the conditions to avoid such as pressure, light, shock, etc.):

Avoid all sources of ignition.

10.5 Substances to be avoided: (Conditions relevant to water, air, acids, bases, oxidizing agents or any other special substances which may cause a hazardous reaction):

Acids, Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous Decomposition Materials:

No hazardous decomposition products are known

11. TOXICOLOGICAL INFORMATION**Information On The Likely Routes of Exposure**

Inhalation Harmful if inhaled in long term

Ingestion Causes digestive tract burns. Harmful if swallowed. Harmful if swallowed

Skin Contact No data collection

Eye Contact Causes severe eye burns

Related Symptoms, Acute and Chronic Effects

Inhalation may irritate the respiratory tract. Symptoms may include; coughing, shortness of breath, sore throat and runny nose. If sufficient amounts are inhaled and absorbed, symptoms may resemble those in acute ingestion. Ingestion may cause gastroenteritis (inflammation of the lining membrane of the stomach and intestines) with abdominal pain, nausea, vomiting and diarrhea. Systemic effects may follow and may include ringing of the ears, dizziness, elevated blood pressure, blurred vision and tremors. Dusts may irritate the respiratory tract, skin and eyes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

The Numerical Measures of Toxicity

LD50 Oral - Rat - male and female - > 2.000 mg/kg

LC50 Inhalation - Rat - male and female - 4 h - > 5,04 mg/l – aerosol

LD50 Dermal - Rat - male and female - > 2.000 mg/kg

Carcinogenicity This product (antimony sulfide (CAS 1345-04-6)) is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA



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12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

Data from toxicity tests performed on aquatic and/or terrestrial organisms, where available

Toxicity to fish; static test LC50	<i>Pimephales promelas (fathead minnow)</i>	14,4 mg/l - 96 h
Toxicity to algae; static test ErC50	<i>Pseudokirchneriella subcapitata</i>	36,6 mg/l - 72 h
Toxicity to bacteria	No data available	

12.1. Persistence and degradability

Persistence and degradability Available upon request.

12.2. Bioaccumulation potential

Bioaccumulative potential Available upon request.

Partition coefficient No information available.

12.3. Mobility in soil

Due to its low solubility in water, it is not likely to be moving in the periphery.

12.4. Results of PBT and vPvB assessment

The product does not contain any substances classified as PBT or vPvB.

12.5. Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component

13. DISPOSAL CONSIDERATIONS

13.1 Product / Packaging disposal

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of container in accordance with local/regional/national/international regulations.

13.2 Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

13.3 Recommended Cleansing Material:

Rinse container with clear water. Offer container for recycling, or dispose of in trash.

13.4 Additional Information:

The generation of waste should be avoided or minimized as much as possible.





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14. TRANSPORT INFORMATION

	ADR ⁷ /RID ⁸	ADNR ⁹	IMDG ¹⁰	ICAO ¹¹ /IATA ¹²
TRANSPORTATION	Roadway	River Channel	Seaway	Airway
14.1. UN/ID No.	UN 1549			
14.2. PROPER SHIPPING NAME	Antimony compound, inorganic, solid, n.o.s. (antimony sulfide)			
SYMBOL				
14.3. CLASS	6.1			
14.4 PACKAGING GROUP	III			
LABELLING NO	6.1			
CLASSIFICATION CODE	T5	T5	T5	T5
HAZARD NO (HIN NO)	60			
PASSENGER & CARGO AIRCRAFT MAXIMUM NET QUANTITY				
14.5 EmS	F-A,S-A.			
14.6 MARINE Pollutant	No			



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15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture

Product; Classified and labeled according to the procedures and principles stipulated in the "Regulation on the Classification, Labeling and Packaging of the Products and Mixtures" and "in the EU legislation"

Examine the following regulations for other national measures that may be relevant to legislation or interest for the implementation of the provisions of this safety data sheet.

Regulation on Safety Data Sheets for Hazardous Substances and Mixtures

Regulation on the Classification, Labeling and Packaging of Matter and Mixtures

Regulation on the Restriction and Prohibition of Hazardous Substances and Mixtures

Law on Occupational Health and Safety

Regulation on Health and Safety Precautions in Carcinogenic and Mutagenic Activities

Regulation on Health and Safety Precautions in Working with Chemical Substances

Regulation on the Use of Personal Protective Equipment in

Workplaces Hand Carrying Works Regulation Waste Management Regulation

Regulation on the Prevention and Reduction of Major Industrial Accidents

16. OTHER INFORMATION

16.1 Other information

This document has been prepared and documented in accordance with the provisions of Regulation (EC) No 1907/2006 (REACH) and ISO 11014-1, "Regulation on Safety Data Sheets for Hazardous Substances and Mixtures" dated December 13, 2014 and approved. Expert Accreditation No: Chemical Engineer Fulya KEÇELİOĞLU TUV/11.09.01

16.2 Reason of re-issue Fourth issue

16.3 Classification For Mixtures And Used Evaluation Method According To ;

December 13, 2014 and 29204 were regulated according to the regulation.

16.4 Explanations on the Methods of Classification of Hazardous Dissatisfaction (Which of the methods of assessing the information set out in Article 11 of the Regulation on Classification, Labeling and Packaging of Materials and Mixtures are used for classification purposes)





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16.5 Other Topics:

- Contact our sales department for suggestions on safe use of the product.
- Contact our sales department for recommended limitations on the use of the product and for non-legal recommendations.
- It is advisable to obtain appropriate training for workers to read and use safety data sheets and labeling information in a clear way, in order to protect the human health and environment against product exposure and general safety culture.
- Key information sources used in the arrangement of this safety data sheet;
 Safety Information Form / Forms prepared by the manufacturer for the product
 - "Regulation on Safety Data Sheets for Hazardous Substances and Mixtures" and annexes,
 - "Regulation on the Classification, Labeling and Packing of Materials and Mixtures" and its annexes
 - "Regulation on Health and Safety Precautions for Carcinogenic and Mutagenic Activities" and its annexes,
 - Other relevant local regulations
 - UN ADR, IMDG, IATA lists, ECHA and related EU directives,
 Other helpful resources.

16.6 Additional Information:

- The information provided in this Safety Data Sheet was prepared based on our best available experience, knowledge and belief on the date of its preparation.
- The information provided is designed as a guide for safe handling, storage and disposal.
- This information applies only to the specified substance / mixture, unless otherwise specified in the documentation, and may not apply if this substance is used in combination with other substances or if any other procedure is used.
- Please observe the information on the Safety Data Sheet for use. This information is based on our current knowledge.
This Safety Data Sheet defines the product according to the recognized safety regulations, but does not guarantee the safety of the product.
It does not constitute a guarantee and the product specifications do not establish a legally valid contractual relationship.

¹ RG: Official newspaper

² EINECS: European Inventory of chemical substances

³ CAS: Service registration number of chemical substances

⁴ PBT: Persistent Bioaccumulative Toxic

⁵ VPVB: Very Persistent, Very Bioaccumulative

⁶ BCF: Bioconcentration Factor

⁷ ADR: Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)

⁸ RID: Regulations Concerning the International Transport of Dangerous Goods by Rail (European law)

⁹ ADN: Regulation for the Carriage of Dangerous Substances on the Rhine (EU)

¹⁰ IMDG: International Maritime Dangerous Goods (United Nations)

¹¹ ICAO: International Civil Aviation Organization

