



SAFETY DATA SHEET INDIUM ANTIMONIDE

According to Regulation (EC) No 1907/2006

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name INDIUM ANTIMONIDE
REACH Registration notes REACH registration number not yet available
CAS-No. 1312-41-0
EC No. 215-192-3

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Manufacture of basic metals, including alloys. industrial uses: Use of substances as such or in preparations at industrial sites. Electronic and semiconductor industry
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier 5N Plus Fairfield Inc
515 Commerce Drive
Fairfield,
Connecticut 06825
United States
+1 203-384-0331
+1 203-368-4082
msds@5nplus.com

1.4. Emergency telephone number

+44(0)1933 225766 (7.30am - 6.00pm Monday to Friday)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical and Chemical Hazards Not classified.
Human health Acute Tox. 4 - H302; Acute Tox. 4 - H332
Environment Aquatic Chronic 2 - H411

Classification (67/548/EEC) Xn; R20/22. N; R51/53.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements

EC No. 215-192-3
Label In Accordance With (EC) No. 1272/2008



Signal Word Warning

Hazard Statements

H302 Harmful if swallowed.
H332 Harmful if inhaled.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P271 Use only outdoors or in a well-ventilated area.

INDIUM ANTIMONIDE

P273	Avoid release to the environment.
P301+312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P391	Collect spillage.
Supplementary Precautionary Statements	
P270	Do not eat, drink or smoke when using this product.
P261	Avoid breathing vapour/spray.
P264	Wash contaminated skin thoroughly after handling.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P501	Dispose of contents/container to ...

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

Product name	INDIUM ANTIMONIDE
REACH Registration notes	REACH registration number not yet available
CAS-No.	1312-41-0
EC No.	215-192-3

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

CAUTION! First aid personnel must be aware of own risk during rescue!

Inhalation

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

Ingestion

Immediately rinse mouth and provide fresh air. Get medical attention if any discomfort continues.

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed**General information**

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. NOTE! Effects may be delayed. Keep affected person under observation. Seek medical attention for all burns, regardless how minor they may seem.

Inhalation

Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Ingestion

Metallic taste. The molten product can cause serious burns. May cause stomach pain or vomiting.

Skin contact

No specific symptoms noted.

Eye contact

Dust in the eyes: May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES**5.1. Extinguishing media**

INDIUM ANTIMONIDE

Extinguishing media

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

DO NOT use water if avoidable.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Fire or high temperatures create: Toxic gases/vapours/fumes of: Metal oxides. Carbon monoxide (CO).

Unusual Fire & Explosion Hazards

Dust may form explosive mixture with air.

Specific hazards

When heated and in case of fire, harmful vapours/gases may be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Fight advanced or massive fires from safe distance or protected location.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Warn everybody of potential hazards and evacuate if necessary. Avoid inhalation of dust and vapours. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Avoid spreading dust or contaminated materials. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Avoid generation and spreading of dust. Should be prevented from entering drains. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container. For waste disposal, see section 13.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid handling which leads to dust formation. Avoid inhalation of dust and contact with skin and eyes. Avoid excessive heat for prolonged periods of time. Do not handle broken packages without protective equipment. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Change work clothing daily before leaving work place. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool and well-ventilated place.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
INDIUM ANTIMONIDE	WEL		0,1 mg/m3		0,3 mg/m3	as In

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment

INDIUM ANTIMONIDE**Process conditions**

Provide eyewash station.

Engineering measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided.

Hand protection

Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection

Use approved safety goggles or face shield.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. **DO NOT SMOKE IN WORK AREA!** Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. Change work clothing daily if there is any possibility of contamination. Wash contaminated clothing before reuse.

Skin protection

Wear suitable protective clothing as protection against splashing or contamination.

Thermal hazards

The molten product can cause serious burns.

Environmental Exposure Controls

Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance	Metal or metallic pieces
Colour	Grey. - Blue.
Odour	Odourless.
Solubility	Insoluble in water
Melting point (°C)	524
Relative density	5.7747 25
Flash point (°C)	Not applicable.
Oxidising properties	1:1 mixture, by mass, of product and cellulose. Mean burning time: 221 sec
	Does not meet the criteria for oxidising.

9.2. Other information

Mol. Weight	236.578
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SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions**Hazardous Polymerisation**

Not relevant

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

INDIUM ANTIMONIDE

Materials To Avoid

Strong acids. Strong oxidising substances.

[10.6. Hazardous decomposition products](#)

When heated, vapours/gases hazardous to health may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION

[11.1. Information on toxicological effects](#)

Toxic Dose 1 - LD 50

3700 mg/kg (ipr-mouse)

General information

Knowledge about health hazard is incomplete.

Inhalation

NOTE! Effects may be delayed. Keep affected person under observation. Vapours may cause headache, fatigue, dizziness and nausea. Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Ingestion

May cause discomfort if swallowed. May irritate and cause stomach pain, vomiting and diarrhoea. May cause nausea, headache, dizziness and intoxication. Ingestion of large amounts may cause unconsciousness.

Skin contact

Powder may irritate skin. Prolonged and frequent contact may cause redness and irritation.

Eye contact

Particles in the eyes may cause irritation and smarting. Repeated exposure may cause chronic eye irritation.

Route of entry

Ingestion. Inhalation.

Target Organs

No specific target organs noted

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

[12.1. Toxicity](#)

[12.2. Persistence and degradability](#)

Degradability

The product solely consists of inorganic compounds which are not biodegradable.

Biodegradation

Not available.

[12.3. Bioaccumulative potential](#)

Bioaccumulative potential

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

[12.4. Mobility in soil](#)

Mobility:

The product is insoluble in water.

[12.5. Results of PBT and vPvB assessment](#)

Not Classified as PBT/vPvB by current EU criteria.

[12.6. Other adverse effects](#)

None known.

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SECTION 13: DISPOSAL CONSIDERATIONS

General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1. Waste treatment methods

Recover and reclaim or recycle, if practical. Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

General

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

Transport Labels

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not relevant

SECTION 15: REGULATORY INFORMATION

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

Uk Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

National Regulations

Health and Safety at Work Act (As Amended) 1974 Control of Substances Hazardous to Health Regulations 2002 (as amended)

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

Water hazard classification

WGK 2

INDIUM ANTIMONIDE**15.2. Chemical Safety Assessment**

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION**Information Sources**

US-EPA Ecotox databases Hazardous Substance Data Bank (HSDB®) eChemPortal Handbook of chemistry and Physics 91st Edition, W.M. Haynes European Chemicals Agency (ECHA) databases

Issued By Chemical Compliance Officer

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Risk Phrases In Full

R20/22 Harmful by inhalation and if swallowed.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full

H332 Harmful if inhaled.

H302 Harmful if swallowed.

H411 Toxic to aquatic life with long lasting effects.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.