

SAFETY DATA SHEET

Silver Foil

Version 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Silver Foil

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

This information is not available.

1.3 Details of the supplier of the safety data sheet

| | |
|-----------|--|
| Company | TKB Trading, LLC 1101 9th Avenue Oakland, CA 94606 |
| Telephone | 510-451-9011 |

SECTION 2: Hazards identification

GHS Classification

Flammable solids, Category 1, H228

GHS-Labelling

Symbol(s)



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| | |
|--------------------------|--|
| Signal word | Danger |
| Hazard statements | H228: Flammable solid. |
| Precautionary statements | Prevention: P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment. P280 Wear protective gloves/ eye protection/ face protection. Response: P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. |

Hazardous components which must be listed on the label

SECTION 3: Composition/information on ingredients

Hazardous components

| Chemical Name | CAS-No. EINECS-No. | Classification and labelling | Concentration[%] |
|---------------|------------------------|---------------------------------|------------------|
| aluminium | 7429-90-5 231-072-3 | Flam. Sol.;1;H228 | 60 - 100 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

| | |
|----------------|--|
| General advice | Move out of dangerous area. Move the victim to fresh air. |
|----------------|--|

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| | |
|-------------------------|---|
| If inhaled | If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician. |
| In case of skin contact | If on skin, rinse well with water. If on clothes, remove clothes. Wash off immediately with soap and plenty of water. |
| In case of eye contact | Flush eyes with water as a precaution. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. |
| If swallowed | Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. |

4.2 Most important symptoms and effects, both acute and delayed

| | |
|----------|---------------------------|
| Symptoms | No information available. |
| Risks | No information available. |

4.3 Indication of any immediate medical attention and special treatment needed

| | |
|-----------|-----------------------------|
| Treatment | : No information available. |
|-----------|-----------------------------|

SECTION 5: Firefighting measures

5.1 Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | Dry sand, Special powder against metal fire |
| Unsuitable extinguishing media | ABC powder, Carbon dioxide (CO ₂), Water, Foam |

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5.2 Special hazards arising from the substance or mixture

| | |
|--------------------------------------|--|
| Specific hazards during firefighting | Contact with water liberates extremely flammable gas (hydrogen). |
|--------------------------------------|--|

5.3 Advice for firefighters

| | |
|---|--|
| Special protective equipment for firefighters | Wear self contained breathing apparatus for fire fighting if necessary. |
| Further information | Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

| | |
|----------------------|---|
| Personal precautions | Avoid dust formation. Remove all sources of ignition. Use personal protective equipment. Evacuate personnel to safe areas. |
|----------------------|---|

6.2 Environmental precautions

| | |
|---------------------------|---|
| Environmental precautions | Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. |
|---------------------------|---|

6.3 Methods and materials for containment and cleaning up

| | |
|-------------------------|---|
| Methods for cleaning up | Do not flush with water. Keep in suitable, closed containers for disposal. Use mechanical handling equipment. Do not use a vacuum cleaner. |
|-------------------------|---|

6.4 Reference to other sections

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For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Avoid creating dust. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Store away from heat.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

Use explosion-proof equipment. During processing, dust may form explosive mixture in air. Take measures to prevent the build up of electrostatic charge. When transferring from one container to another apply earthing measures and use conductive hose material.

Hygiene measures

Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

No smoking. Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

Earthing of containers and apparatuses is essential. Reaction with water liberates extremely flammable gas (hydrogen) Use explosion-proof equipment. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking. Keep container closed when not in use.

Further information on

Protect from humidity and water.

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storage conditions

| | |
|--------------------------|---|
| Advice on common storage | Do not store near acids. Do not store together with oxidizing and self-igniting products. Never allow product to get in contact with water during storage. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. |
| German storage class | 4.1B, Flammable solid hazardous materials |
| Other data | Keep in a dry place. No decomposition if stored and applied as directed. |

7.3 Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Germany:

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Update | Basis |
|---------------------|-----------|--|------------------------|------------|-------------|
| aluminium | 7429-90-5 | AGW (Inhalable fraction) | 10 mg/m ³ | 2009-02-16 | DE TRGS 900 |
| Further information | | Commission for dangerous substances | | | |
| aluminium | 7429-90-5 | AGW (Alveolate fraction) | 1,35 mg/m ³ | 2009-02-16 | DE TRGS 900 |
| Further information | | Commission for dangerous substances | | | |
| silicon dioxide | 7631-86-9 | AGW (Inhalable fraction) | 4 mg/m ³ | 2011-04-12 | DE TRGS 900 |
| Further information | | Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission). Colloidal amorphous silica, including pyrogenic silica and in wet processes | | | |

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manufactured silica (precipitated silica, silicagel).When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child

8.2 Exposure controls

Personal protective equipment

| | |
|--------------------------|---|
| Eye protection | Eye wash bottle with pure water |
| | Face-shield |
| Hand protection | |
| Material | Leather |
| Glove length | Long sleeve gloves |
| Remarks | The suitability for a specific workplace should be discussed with the producers of the protective gloves. |
| | Leather gloves The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. |
| Skin and body protection | Dust impervious protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place. |
| | Anti-static and fire resistant protective clothing. EN 531; EN 533; EN 1149-1. Anti-static safety shoes. |
| Respiratory protection | Use suitable breathing protection if workplace concentration requires. |

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Breathing apparatus with filter.

P1 filter

Environmental exposure controls

General advice

Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform respective authorities.

Water

The product should not be allowed to enter drains, water courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|------------------------------|-------------------|
| Appearance | powder |
| Colour | silver |
| Odour | odourless |
| pH | no data available |
| Melting point/freezing point | 660 °C |
| Boiling point/boiling range | 2 467 °C |
| Flash point | no data available |
| Bulk density | no data available |
| Flammability (solid, gas) | no data available |
| Smoldering temperature | > 230 °C |

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| | |
|--|-------------------|
| Auto-flammability | no data available |
| Upper explosion limit | no data available |
| Lower explosion limit | 30 mg/m3 |
| Vapour pressure | no data available |
| Density | no data available |
| Water solubility | no data available |
| Miscibility with water | immiscible |
| Solubility in other solvents | no data available |
| Partition coefficient: n-octanol/water | no data available |
| Auto-ignition temperature | 340 °C |
| Thermal decomposition | no data available |
| Viscosity, dynamic | no data available |
| Viscosity, kinematic | no data available |
| Flow time | no data available |

9.2 Other information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions Stable under recommended storage conditions.

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Contact with acids and alkalis may release hydrogen.

Dust may form explosive mixture in air.

10.4 Conditions to avoid

| | |
|---------------------|--------------------------|
| Conditions to avoid | Heat, flames and sparks. |
|---------------------|--------------------------|

10.5 Incompatible materials

| | |
|--------------------|------------------------------------|
| Materials to avoid | Acids Bases Oxidizing agents |
|--------------------|------------------------------------|

10.6 Hazardous decomposition products

| | |
|-------------------|---------------------|
| Other information | : no data available |
|-------------------|---------------------|

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

7429-90-5 :

| | |
|---------------------------|----------------------------|
| Acute inhalation toxicity | LC50 rat: > 5 mg/l |
| | Exposure time: 4 h |
| | Test atmosphere: dust/mist |

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

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no data available

Respiratory or skin sensitisation

no data available

Carcinogenicity

no data available

Toxicity to reproduction/fertility

no data available

Reprod.Tox./Development/Teratogenicity

no data available

STOT - single exposure

no data available

STOT - repeated exposure

no data available

Aspiration toxicity

no data available

Further information

Product

no data available

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SECTION 12: Ecological information

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Product:

Additional ecological
information

no data available

SECTION 13: Disposal considerations

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13.1 Waste treatment methods

| | |
|------------------------|--|
| Product | Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company. |
| Contaminated packaging | Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum. |

SECTION 14: Transport information

14.1 UN number

| | |
|-------|------|
| ADR | 1309 |
| CN_DG | 1309 |
| TDG | 1309 |
| CFR | 1309 |
| IMDG | 1309 |
| IATA | 1309 |

14.2 Proper shipping name

| | |
|-------|--------------------------|
| ADR | ALUMINIUM POWDER, COATED |
| CN_DG | ALUMINIUM POWDER |
| TDG | ALUMINUM POWDER, COATED |
| CFR | ALUMINUM POWDER, COATED |
| IMDG | ALUMINIUM POWDER, COATED |
| IATA | ALUMINIUM POWDER, COATED |

14.3 Transport hazard class

| | |
|-------|-----|
| ADR | 4.1 |
| CN_DG | 4.1 |

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| | |
|-------------|-----|
| TDG | 4.1 |
| CFR | 4.1 |
| IMDG | 4.1 |
| IATA | 4.1 |

14.4 Packing group

ADR

| | |
|--------------------------|-----|
| Packaging group | II |
| Classification Code | F3 |
| Hazard identification No | 40 |
| Labels | 4.1 |
| Tunnel restriction code | (E) |

CN_DG

| | |
|-----------------|-----|
| Packaging group | II |
| Labels | 4.1 |

TDG

| | |
|-----------------|-----|
| Packaging group | II |
| Labels | 4.1 |

CFR

| | |
|-----------------|-----|
| Packaging group | II |
| Labels | 4.1 |

IMDG

| | |
|-----------------|----------|
| Packaging group | II |
| Labels | 4.1 |
| EmS Number | F-G, S-G |

IATA

| | |
|--------------------------------------|-----|
| Packing instruction (cargo aircraft) | 448 |
|--------------------------------------|-----|

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| | |
|---|------|
| Packing instruction (passenger aircraft) | 445 |
| Packing instruction (LQ) | Y441 |
| Packaging group | II |
| Labels | 4.1 |

14.5 Environmental hazards

14.6 Special precautions for user

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

SECTION 15: Regulatory information

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

15.2 Chemical Safety Assessment

no data available

SECTION 16: Other information

Full text of H-Statements

H228 Flammable solid.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is

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not to be considered a warranty or quality specification. The 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, unless specified in the text.