



## Safety Data Sheet

### Section 1. Identification

**Product name** : ALPHA® OM-362 Solder Paste Innolot 88.2-4-M11  
**Product code** : 280222  
**Product type** : Solid.  
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## Section 2. Hazard identification

**Classification of the substance or mixture** : SKIN SENSITIZATION - Category 1  
CARCINOGENICITY - Category 2

### GHS label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : May cause an allergic skin reaction.  
Suspected of causing cancer.

### Precautionary statements

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace.

**Response** : IF exposed or concerned: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.

**Storage** : Store locked up.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	%	CAS number
tin	80-100	7440-31-5
bis(2-butoxyethyl) ether	1-10	112-73-2
silver	1-10	7440-22-4
bismuth	1-10	7440-69-9
Proprietary rosin	1-10	-
Proprietary Rosin/Resin	1-10	-
Polyolefin	1-10	-
antimony	1-10	7440-36-0
Nickel	0.1-1.0	7440-02-0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

**Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open. Get medical attention.

## Section 4. First aid measures

- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 15 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

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## Section 5. Fire-fighting measures

- Specific hazards arising from the chemical** : No specific fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
tin	<b>ACGIH TLV (United States, 3/2017).</b> TWA: 2 mg/m <sup>3</sup> , (as Sn) 8 hours.
silver	<b>ACGIH TLV (United States, 3/2017).</b> <b>Notes: Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL.</b> TWA: 0.1 mg/m <sup>3</sup> 8 hours. Form: Dust and fumes
antimony	<b>ACGIH TLV (United States, 3/2017).</b> <b>Notes: as Sb</b> TWA: 0.5 mg/m <sup>3</sup> , (as Sb) 8 hours.
Nickel	<b>ACGIH TLV (United States, 3/2017).</b> <b>Notes: Refers to Appendix A -- Carcinogens. Inhalable fraction. See Appendix C, paragraph A. Inhalable Particulate Mass TLVs (IPM-TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract. 1998 Adoption.</b> TWA: 1.5 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Solid.
- Color** : Gray.
- Odor** : Mild.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: >93.333°C (>200°F) [Setaflash]
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not applicable.
- Vapor pressure** : Not available.
- Relative vapor density** : Not applicable.
- Relative density** : Not available.
- Solubility** : Insoluble in the following materials: cold water and hot water.
- VOC** : 66.6 g/l
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.

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## Section 9. Physical and chemical properties and safety characteristics

- Viscosity** : Not applicable.  
**Flow time (ISO 2431)** : Not available.  
**Particle characteristics**  
**Median particle size** : Not available.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.  
**Chemical stability** : The product is stable.  
**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.  
**Conditions to avoid** : No specific data.  
**Incompatibility with various substances** : Reactive or incompatible with the following materials: organic materials, metals and acids.  
 Slightly reactive or incompatible with the following materials: oxidizing materials, reducing materials, combustible materials, alkalis and moisture.  
**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
**Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
tin	LD50 Oral	Rat	>2000 mg/kg	-
bis(2-butoxyethyl) ether	LD50 Dermal	Rabbit	4040 uL/kg	-
	LD50 Oral	Rat	3900 mg/kg	-
silver	LD50 Oral	Rat	3900 mg/kg	-
	LD Oral	Guinea pig	>5 g/kg	-
	LD Oral	Mouse	>10 g/kg	-
	LD50 Oral	Mouse	100 mg/kg	-
bismuth	LD50 Oral	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	5 g/kg	-
Proprietary rosin	LD50 Oral	Rat	>2000 mg/kg	-
Proprietary Rosin/Resin	LD50 Dermal	Rabbit	>2.5 g/kg	-
	LD50 Oral	Mouse	>3 g/kg	-
	LD50 Oral	Rat	>4 g/kg	-
Polyolefin	LD50 Oral	Rat	>2000 mg/kg	-
antimony	LD50 Oral	Rat	100 mg/kg	-
Nickel	LDLo Oral	Guinea pig	5 mg/kg	-
	LDLo Oral	Mouse	500 mg/kg	-
	LDLo Oral	Rat	500 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis(2-butoxyethyl) ether	Skin - Mild irritant	Rabbit	-	500 milligrams	-

#### Sensitization

Not available.

#### Mutagenicity

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## Section 11. Toxicological information

Not available.

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Nickel	Category 1	inhalation	-

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Dermal contact. Inhalation. Ingestion.

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May cause an allergic skin reaction.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
**Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

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## Section 11. Toxicological information

- Mutagenicity** : No known significant effects or critical hazards.  
**Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	35371.01 mg/kg
Dermal	117702.45 mg/kg

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
bis(2-butoxyethyl) ether	Acute LC50 134 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
silver	Acute EC50 1.4 µg/l Marine water	Algae - Chroomonas sp.	4 days
	Acute EC50 0.0092 mg/l	Daphnia	48 hours
	Acute EC50 0.24 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 11 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 0.00213 mg/l	Fish	96 hours
	Acute LC50 0.00238 mg/l	Fish	96 hours
	Acute LC50 0.00276 mg/l	Fish	96 hours
	Acute LC50 0.00312 mg/l	Fish	96 hours
	Acute LC50 0.00342 mg/l	Fish	96 hours
	Chronic NOEC 5 mg/l Marine water	Algae - Glenodinium halli	72 hours
Proprietary Rosin/Resin LC50 60.3 mg/l	Fish	96 hours	
Polyolefin antimony	Acute LC50 >100 mg/l	Fish	96 hours
	Acute LC50 18000 µg/l	Daphnia - Daphnia magna	48 hours
Nickel	Acute LC50 22 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 2 ppm Marine water	Algae - Macrocystis pyrifera - Young	4 days
	Acute EC50 450 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 1000 µg/l Marine water	Daphnia - Daphnia magna	48 hours
	Acute IC50 0.31 mg/l Marine water	Crustaceans - Americamysis bahia - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
Chronic NOEC 100 mg/l Marine water	Acute LC50 47.5 ng/L Fresh water	Fish - Heteropneustes fossilis	96 hours
	Chronic NOEC 3.5 µg/l Fresh water	Algae - Glenodinium halli	72 hours
		Fish - Cyprinus carpio	4 weeks

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
bis(2-butoxyethyl) ether	1.92	-	low
silver	-	70	low
Proprietary rosin	6.04	-	high
Proprietary Rosin/Resin	3.42	-	low

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## Section 12. Ecological information

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	UN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

### China

SDS complies with the General Rules for Classification and Hazardous Communication of Chemicals GB-13690-2009, GB-30000 series, and GB/T 16438-2008.

### List of Goods banned for Importing

None of the components are listed.

### Drug Precursors Requiring an Import/Export License

None of the components are listed.

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## Section 15. Regulatory information

### Inventory of Hazardous Chemicals

Ingredient name	Status
Antimony powder	Listed

### List of Explosive Precursors

None of the components are listed.

### List of Goods banned for Exporting

None of the components are listed.

### List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

### Catalogue and classification of drug precursor chemicals

None of the components are listed.

### Inventory of Highly Toxic Articles

Ingredient name	Status
Antimony and compounds	Listed

### Catalogue of Hazardous Chemicals of Priority Management

None of the components are listed.

### Catalogue of Occupational Disease Hazard Factors - Dust

None of the components are listed.

### Catalogue of Occupational Disease Hazard Factors - Chemical Factors

None of the components are listed.

### Other China Regulations

Catalogue of Hazardous Chemicals (2015)  
 Classification & code of dangerous goods (GB 6944-2012)  
 Production Safety Law of the People's Republic of China  
 Law of the People's Republic of China on Prevention and Control of Occupational Diseases  
 Environmental Protection Law of the People's Republic of China  
 Regulation on Work Safety Licenses  
 Classification of transportation packing type of dangerous goods GB/T 15098-2008  
 General rules for classification and hazardous communication of chemicals GB 13690-2009  
 List of Dangerous Goods GB12268-2012  
 Occupational Exposure Limits (OELs) for hazardous chemicals GBZ 2.1-2007  
 Hazardous Chemicals Safety Management Ordinance China (2013 revised)  
 Safety data sheet for chemical products: content & order of sections GB/T 16483-2008  
 Rules for classification and labelling of chemicals GB30000-2013  
 Guidance on the compilation of safety data sheet for chemical products GB/T 17519-2013

### Japan

#### Fire Service Law

Class	Product name/Property	Hazard category	Precautionary statement	Designated quantity
Category IV	Material that contains: Class III petroleum	III	Flammable - Keep Fire Away	2000 L

### ISHL

None of the components are listed.

### Substances requiring labelling

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## Section 15. Regulatory information

Ingredient name	%	Status
Tin and its compounds	≥80 - ≤90	Listed
Silver and its compounds (water-soluble)	≤10	Listed
Antimony and its compounds	≤10	Listed

### Chemicals requiring notification

Ingredient name	%	Status
Tin and its compounds	≥80 - ≤90	Listed
Silver and its compounds (water-soluble)	≤10	Listed
Antimony and its compounds	≤10	Listed
Copper and its compounds	≤10	Listed
Nickel and its compounds	≤10	Listed

### Guideline for Preventing Health Hazard by chemical substances (Carcinogenicity)

None of the components are listed.

### Mutagen

None of the components are listed.

### Chemical Substances Control Law (CSCL)

None of the components are listed.

### Poisonous and Deleterious Substances

None of the components are listed.

### Pollutant Release and Transfer Registers (PRTR)

Ingredient name	%	Status
silver and its water-soluble compounds	≤10	Class 1
antimony and its compounds	≤10	Class 1

## Republic of Korea

### A. Regulation according to ISHA

**ISHA article 117** : None of the components are listed.  
(Harmful substances prohibited from manufacture)

**ISHA article 118** : None of the components are listed.  
(Harmful substances requiring permission)

**Article 2 of Youth Protection Act on Substances Hazardous to Youth** : Not applicable.

### Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:

Tin  
silver  
Antimony  
nickel

**ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors)** : None of the components are listed.

## Section 15. Regulatory information

**ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement)** : None of the components are listed.

**ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up)** : None of the components are listed.

**Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)** : None of the components are listed.

### B. Regulation according to Chemicals Control Act

**CCA Article 11 (TRI)** : None of the components are listed.

**Article 18 Prohibited (K-Reach Article 27)** : None of the components are listed.

**Article 19 Subject to authorization (K-Reach Article 25)** : None of the components are listed.

**Article 20 Toxic Chemicals (K-Reach Article 20)** : Not applicable

Ingredient name	CAS number	%
None of the components are listed.		

**Article 20 Restricted (K-Reach Article 27)** : None of the components are listed.

**CCA Article 39 (Accident Precaution Chemicals)** :

Ingredient name	CAS number	%
None of the components are listed.		

**Existing Chemical Substances Subject to Registration** :

Ingredient name	CAS number	%
None of the components are listed.		

**C. Dangerous Materials Safety Management Act** : Not available.

**D. Wastes regulation** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

### Malaysia

#### Poison Act, Poison List - Schedule 1

Not applicable.

#### Poison Act, Poison List - Schedule 3

Not applicable.

### Singapore

#### Singapore - hazardous chemicals under government control

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## Section 15. Regulatory information

None.

### Taiwan

SDS complies with the Regulation of Labeling and Hazard Communication of Hazardous Chemicals

### TCCSCA List of toxic chemicals

Not applicable.

### TCCSCA List of concerned chemicals

Not applicable.

**List of chemicals reputed to be a "threat of imminent danger"** : This product contains substances considered to be a "Threat of imminent danger": tin, silver, antimony.

**OSHA Article 29** : None of the components are listed.

**OSHA Article 30** : None of the components are listed.

**Regulation Governing Designation and Handling Permission of Controlled Chemicals** : Not applicable

### International regulations

#### Inventory list

<b>Australia</b>	: At least one component is not listed.
<b>Canada</b>	: At least one component is not listed in DSL but all such components are listed in NDSL.
<b>China</b>	: All components are listed or exempted.
<b>Japan</b>	: All components are listed or exempted.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.
<b>United States</b>	: All components are listed or exempted.

## Section 16. Other information

### History

**Date of issue/Date of revision** : 6/15/2023

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**Key to abbreviations** : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
N/A = Not available

**Continued on next page**

## Section 16. Other information

SGG = Segregation Group  
UN = United Nations

### Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2	Calculation method Calculation method

**References** : Not available.

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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