

## 1. Product and company identification

### Product identifier

Trade name: Kimya ABS-ESD

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

General use: 3D filament  
For industrial purposes only.

### Details of the supplier of the safety data sheet

Company name:	Airtech International, Inc. 5700 Skylab Road Huntington Beach, CA 92647 E-mail: <a href="mailto:airtech@airtechintl.com">airtech@airtechintl.com</a> Website: <a href="http://www.airtechonline.com">www.airtechonline.com</a> Telephone: +1 714.899.8100 Department responsible for information: Telephone: +1 714.899.8100 E-mail: <a href="mailto:airtech@airtechintl.com">airtech@airtechintl.com</a>	Airtech Europe Sarl Zone industrielle Haneboesch L-4562 Differdange Luxembourg Website: <a href="http://www.airtech.lu">www.airtech.lu</a> Telephone: +352 582.282 Department responsible for information: Telephone: +352 582.282 E-mail: <a href="mailto:sales@airtech.lu">sales@airtech.lu</a>
	Airtech Advanced Materials UK Ltd. The Causeway Broadway Business Park Chadderton, Oldham OL9 9XD United Kingdom Website: <a href="http://www.airtech-amg.co.uk">www.airtech-amg.co.uk</a> Telephone: +44 161.947.1610 Department responsible for information: Telephone: +44 161.947.1610 E-mail: <a href="mailto:sales@airtech-amg.co.uk">sales@airtech-amg.co.uk</a>	Airtech Asia Ltd. No. 161 of Anyuan Rd Chagugang County Wuqing District 301721, Tianjin, P.R. China Website: <a href="http://www.airtech.asia">www.airtech.asia</a> Telephone: +86 22 8862 9800 Telefax: +86 22 8862 9900 Department responsible for information: Telephone: +86 22 8862 9800 E-mail: <a href="mailto:airtech.asia@airtechasia.com.cn">airtech.asia@airtechasia.com.cn</a>

### Emergency phone number

**CHEMTREC EMERGENCY PHONE:**  
**Within USA/Canada: 1-(800)424-9300**  
**International: +1 703-741-5970**

## 2. Hazards identification

### Emergency overview

Appearance: Physical state at 68 °F and 101.3 kPa: solid  
Form: Filament  
Color: Off-white or black

Odor: Odorless

Classification: Sensitization - skin - Category 1.

Hazard symbols:



Signal word:

**Warning**

Hazard statements:

May cause an allergic skin reaction.

Precautionary statements:

Avoid breathing dust/gas/mist/vapors.  
Contaminated work clothing should not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection.  
IF ON SKIN: Wash with plenty of water/soap.  
Specific treatment (see ' First aid ' on this label).  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
Dispose of contents/container in accordance with local/regional/national/international regulation.

### Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Hazards not otherwise classified

Dust contact with the eyes can lead to mechanical irritation. Inhalation of dust may cause irritation of the respiratory system.  
Hot product can cause severe burns. Thermal decomposition can lead to the escape of irritating gases and vapors.  
Particular danger of slipping on molten product.  
see section 11: Toxicological information

## 3. Composition / Information on ingredients

Chemical characterization: Mixture of the substance mentioned below with non-hazardous additions

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 83145-78-2	Potassium bis[oxalato(2-)-k2O1,O2]borate(1-)	0.3 - 0.8 %	Acute Toxicity - oral - Category 4. Eye Damage - Category 1. Sensitization - skin - Category 1.

## 4. First aid measures

General information: If medical advice is needed, have product container or label at hand. Take off contaminated clothing and wash it before reuse.

In case of inhalation: In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still. In case of respiratory difficulties seek medical attention.

Following skin contact: Immediately clean with water and soap followed by thorough rinsing. After contact with molten product, cool skin area rapidly with cold water. Do not peel solidified product off the skin. Seek medical attention.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After swallowing: Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention.

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

May cause an allergic skin reaction.  
Dust contact with the eyes can lead to mechanical irritation. Inhalation of dust may cause irritation of the respiratory system.  
Hot product can cause severe burns. Thermal decomposition can lead to the escape of irritating gases and vapors.

### Information to physician

Treat symptomatically.

## 5. Fire fighting measures

Flash point/flash point range:

Not applicable

Auto-ignition temperature: Not applicable

Suitable extinguishing media:

Water spray jet, dry chemical powder, foam, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet.

### Specific hazards arising from the chemical

May form dangerous gases and vapors in case of fire.  
Furthermore, there may develop: Nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.  
Smaller amounts: Styrene, hydrogen cyanide.

Protective equipment and precautions for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Cool endangered containers with water spray and, if possible, remove from danger zone.  
Do not breathe fumes. Do not allow fire water to penetrate into surface or ground water.

## 6. Accidental release measures

Personal precautions:

Avoid generation of dust. Do not breathe dust/gas/mist/vapors. Provide adequate ventilation. Avoid inhalation and contact with skin and eyes. Wear appropriate protective equipment. Keep unprotected people away.

Environmental precautions:

Do not allow to penetrate into soil, waterbodies or drains.

Methods for clean-up:

Contain spilled material if possible.  
Take up mechanically, placing in appropriate containers for disposal.

Additional information:

Particular danger of slipping on molten product.

## 7. Handling and storage

### Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid generation of dust. Do not breathe dust/gas/mist/vapors. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.  
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.  
Take off contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place.

Precautions against fire and explosion:

Keep away from heat sources, sparks and open flames.  
Product may become electrostatically charged. Ground/bond container and receiving equipment.

### Storage

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place.  
Keep container dry. Keep only in the original container.  
Protect from heat and direct sunlight.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

Type	Limit value
USA: ACGIH: TWA	10 mg/m <sup>3</sup> (Dust limit value, inhalable fraction)
USA: ACGIH: TWA	3 mg/m <sup>3</sup> (Dust limit value, respirable fraction)
USA: OSHA: TWA	15 mg/m <sup>3</sup> (Dust limit value, total dust)
USA: OSHA: TWA	5 mg/m <sup>3</sup> (Dust limit value, respirable fraction)

### Engineering controls

Provide adequate ventilation, and local exhaust as needed.

In the case of the formation of dust: Dust should be exhausted directly at the point of origin.

See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

Eye/face protection: Safety glasses for normal handling, and sealed goggles for handling material during heated processing or opening packages after material has been in closed storage. PPE to be in accordance with OSHA 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Wear suitable protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: In case of inadequate ventilation wear respiratory protection. Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.

In case of dust formation: Particulates filter P1 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.

General hygiene considerations:

Avoid generation of dust. Do not breathe dust/gas/mist/vapors. Do not get in eyes, on skin, or on clothing.  
Do not eat, drink or smoke when using this product.  
Wash hands thoroughly after handling.  
Take off contaminated clothing and wash it before reuse.

**Environmental exposure controls**

Refer to 6.: Section "Environmental precautions".

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Physical state at 68 °F and 101.3 kPa: solid Form: Filament Color: Off-white or black
Odor:	Odorless
Odor threshold:	No data available
pH:	Not applicable
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	Not applicable
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	LEL (Lower Explosion Limit): Not applicable UEL (Upper Explosive Limit): Not applicable
Vapor pressure:	No data available
Vapor density:	No data available
Density:	1.03 g/cm <sup>3</sup>
Water solubility:	Insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	Not applicable
Thermal decomposition:	No data available
Viscosity, kinematic:	Not applicable
Additional information:	Glass transition temperature: 224.6 °F

## 10. Stability and reactivity

Reactivity: Refer to subsection "Possibility of hazardous reactions".

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions:

No hazardous reaction when handled and stored according to provisions.

Conditions to avoid: Avoid generation of dust. Keep away from heat sources, sparks and open flames.  
Protect from direct sunlight.  
Protect from moisture contamination.  
Avoid temperatures exceeding 572 °F.

Incompatible materials: No data available

Hazardous decomposition products: No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

## 11. Toxicological information

### Toxicological tests

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Other information: Information about Potassium bis[oxalato(2-)-k2O1,O2]borate(1-) (CAS 83145-78-2):  
LD50 Rat, oral: 550 mg/kg (OECD 425)

### Symptoms

Dust contact with the eyes can lead to mechanical irritation. Inhalation of dust may cause irritation of the respiratory system.

In case of inhalation:  
Thermal decomposition can lead to the escape of irritating gases and vapors.

After contact with skin: Hot product can cause severe burns.

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Information about Potassium bis[oxalato(2-)-k<sub>2</sub>O<sub>1</sub>,O<sub>2</sub>]borate(1-) (CAS 83145-78-2):  
Daphnia toxicity:  
EC50 Daphnia magna (Big water flea): > 100 mg/L/48h (OECD 202)  
Algae toxicity:  
EC50 Pseudokirchneriella subcapitata (green algae), growth rate: 40.69 mg/L/72h (OECD 201)

### Mobility in soil

No data available

### Persistence and degradability

Further details: No data available

### Additional ecological information

General information: Do not release large quantities into the surface water or into drains.

## 13. Disposal considerations

### Product

Recommendation: Dispose of waste according to applicable legislation.

### Package

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled.

## 14. Transport information

### UN number

ADR/RID, IMDG, IATA-DGR:  
not applicable

### UN proper shipping name

ADR/RID, IMDG, IATA-DGR:  
Not restricted

### Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:  
not applicable

### Packing group

ADR/RID, IMDG, IATA-DGR:  
not applicable

### Environmental hazards

Marine pollutant: no

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

No data available

**USA: Department of Transportation (DOT)**

Proper shipping name: Not restricted

**Sea transport (IMDG)**

Proper shipping name:: Not restricted

Marine pollutant: no

**Air transport (IATA)**

Proper shipping name:: Not restricted

**Further information**

No dangerous good in sense of these transport regulations.

**15. Regulatory information**

**National regulations - U.S. Federal Regulations**

All ingredients of this product are on the TSCA inventory, or are not required to be listed on the TSCA inventory.

**National regulations - U.S. State Regulations**

No data available

**16. Other information**

Text for labeling: Contains 0.3 - 0.8 % Potassium bis[oxalato(2-)-k2O1,O2]borate(1-).

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

Classification procedure:

Physical hazards: on basis of test data

Health hazards, environmental hazards: calculation method

### Abbreviations and acronyms:

Acute Toxicity: Acute toxicity  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
EC: European Community  
EC50: Effective Concentration 50%  
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
EN: European Standard  
EQ: Excepted quantities  
Eye Damage: Eye damage  
IATA: International Air Transport Association  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG Code: International Maritime Dangerous Goods Code  
IMO: International Maritime Organization  
LD50: Lethal dose 50%  
LEL: Lower Explosion Limit  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
MFSU: Manufacture, formulation, supply and use  
OECD: Organisation for Economic Co-operation and Development  
OEL: Occupational Exposure Limit Value  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
PPE: Personal protection equipment  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
Sensitization - skin: Skin sensitisation  
TLV: Threshold Limit Value  
TRGS: Technical Rules for Hazardous Substances  
TSCA: Toxic Substance Control Act  
vPvB: Very persistent and very bioaccumulative  
WEL: Workplace Exposure Limit

### Department issuing data sheet

Contact person: see section 1: Department responsible for information

This data sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, and which additional precautions may be necessary. All health and safety information contained in this data sheet should be provided to your employees and customers. It is your responsibility to develop appropriate workplace instructions and training programs for employees.

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