1. Product and company identification

Product identifier

Trade name: Kimya ABS Carbon

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: airtech@airtechintl.com
Website: www.airtechonline.com
Telephone: +1 714.899.8100
Department responsible for information:
Telephone: +1 714.899.8100
E-mail: airtech@airtechintl.com

Airtech Europe Sarl
Zone industrielle Haneboesch
L–4562 Differdange
Luxembourg
Website: www.airtech.lu
Telephone: +352 582.282
Department responsible for information:
Telephone: +352 582.282
E-mail: sales@airtech.lu

Airtech Advanced Materials UK Ltd.
The Causeway
Broadway Business Park
Chadderton, Oldham
OL9 9XD United Kingdom
Website: www.airtech-amg.co.uk
Telephone: +44 161.947.1610
Department responsible for information:
Telephone: +44 161.947.1610
E-mail: sales@airtech-amg.co.uk

Airtech Asia Ltd.
No. 161 of Anyuan Rd
Chagugang County
Wuqing District
301721, Tianjin, P.R. China
Website: www.airtech.asia
Telephone: +86 22 8862 9800
Telefax:: +86 22 8862 9900
Department responsible for information:
Telephone: +86 22 8862 9800
E-mail: airtech.asia@airtechasia.com.cn

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: black

Odor: Odorless

Classification: This material is classified as not hazardous.

Regulatory status

This material is not 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: The product does not contain dangerous substances above limits that need to be mentioned in this section according to applicable legislation.

4. First aid measures

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. Seek medical attention.

Most important symptoms/effects, acute and delayed

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: 662 °F

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: Styrene, hydrogen cyanide, hydrocarbons, acrylonitrile, acrolein, aldehydes, phenol, carbon monoxide and carbon dioxide

Protective equipment and precautions for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information: 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. Avoid breathing 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 release large quantities into the surface water or into drains.

Methods for clean-up: 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. Avoid breathing 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.

Precautions against fire and explosion:

Keep away from heat.
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.
Do not store together with: Strong oxidizing agents

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

Type	Limit value
USA: ACGIH: TWA	10 mg/m³ (Dust limit value, inhalable fraction)
USA: ACGIH: TWA	3 mg/m³ (Dust limit value, respirable fraction)
USA: OSHA: TWA	15 mg/m³ (Dust limit value, total dust)
USA: OSHA: TWA	5 mg/m³ (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. Avoid breathing 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: 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:	This material is combustible, but will not ignite readily.
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	1.045 g/cm³
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available

Auto-ignition temperature:	662 °F
Thermal decomposition:	> 572 °F
Explosive properties:	Product is not explosive.
Additional information:	Glass transition temperature: 226.4 °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.

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products:
Acetaldehyde, hydrogen cyanide, acrolein, styrene, toluene, acrylonitrile.

Thermal decomposition: > 572 °F

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

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.

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

Further details: No data available

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

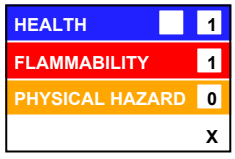
No data available

16. Other information

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



Abbreviations and acronyms:

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
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
EN: European Standard
EQ: Excepted quantities
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
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
MFSU: Manufacture, formulation, supply and use
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
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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