

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

### 1.1 Product identifier

Trade name: Kimya TPU-R

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

General use: 3D filament  
For industrial purposes only.

### 1.3 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>

### 1.4 Emergency telephone number

**CHEMTREC EMERGENCY PHONE:**  
International: +1 703-741-5970

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

This mixture is classified as not hazardous.

### 2.2 Label elements

#### Labelling (CLP)

Hazard statements: not applicable

Precautionary statements: not applicable

### 2.3 Other hazards

May form explosible dust-air mixture if dispersed.

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 vapours.

Particular danger of slipping on molten product.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% (w/w) or higher. The product contains no components classified as PBT or as vPvB at concentrations of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

### 3.2 Mixtures

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

## SECTION 4: First aid measures

### 4.1 Description of 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: 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 troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical attention.

### 4.2 Most important symptoms and effects, both 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 vapours.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:

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

Extinguishing media which must not be used for safety reasons:

Full water jet

### 5.2 Special hazards arising from the substance or mixture

May form explosible dust-air mixture if dispersed.

Emits toxic fumes under fire conditions.

In case of fire may be liberated: Hydrogen cyanide, nitrogen oxides (NO<sub>x</sub>), Isocyanates, carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Special protective equipment 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.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/gas/mist/vapours. Avoid generation of dust. Provide adequate ventilation. Avoid inhalation and contact with skin and eyes. Wear appropriate protective equipment. Keep unprotected people away.

### 6.2 Environmental precautions

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

### 6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid breathing dust/gas/mist/vapours. Avoid generation of dust. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Precautions against fire and explosion:

Keep away from heat sources, sparks and open flames. Take precautionary measures against static discharges.

## 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place. Protect from frost and exposure to sun.

Protect from moisture contamination.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.

## 7.3 Specific end use(s)

No information available.

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

Provide adequate ventilation, and local exhaust as needed.

## Personal protection equipment

### Occupational exposure controls

Respiratory protection: In case of inadequate ventilation wear respiratory protection.

In case of dust formation: Particulates filter P1 according to EN 143.

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

Hand protection: Protective gloves according to I.S. EN ISO 374-1.

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

Eye protection: Tightly sealed goggles according to I.S. EN ISO 16321-1.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:

Avoid breathing dust/gas/mist/vapours. Avoid generation of dust. Wash hands before breaks and after work. When using do not eat, drink or smoke.

Avoid contact with skin, eyes, and clothing.

## Environmental exposure controls

Refer to "6.2 Environmental precautions".

# SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	solid
Colour:	Form: filament Translucent
Odour:	Odourless
Melting point/freezing point:	No data available
Boiling point:	No data available
Flammability:	No data available

Lower and upper explosion limit:	Not applicable
Flash point:	Not applicable
Auto-ignition temperature:	Not applicable
Decomposition temperature:	> 230 °C
pH:	Not applicable
Kinematic viscosity:	Not applicable
Water solubility:	Insoluble
Partition coefficient n-octanol/water (log value):	No data available
Vapour pressure:	No data available
Density:	1.14 g/cm <sup>3</sup>
Relative vapour density:	Not applicable
Particle characteristics:	No data available

### 9.2 Other information

Explosive properties:	No data available
Oxidizing characteristics:	No data available
Auto-ignition temperature:	> 400 °C
Additional information:	Glass transition temperature: -33 °C

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

May form explosible dust-air mixture if dispersed.

### 10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.  
Protect from direct sunlight.  
Protect from moisture contamination.

### 10.5 Incompatible materials

No data available

### 10.6 Hazardous decomposition products

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

Thermal decomposition: > 230 °C

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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.

### 11.2 Information on other hazards

Endocrine disrupting properties:  
None

### 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 vapours.

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

## SECTION 12: Ecological information

### 12.1 Toxicity

Further details: No data available

### 12.2 Persistence and degradability

Further details: No data available

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:  
No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

The product contains no components classified as PBT or as vPvB at concentrations of 0.1% or higher.

### 12.6 Endocrine disrupting properties

None

### 12.7 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste key number: 07 02 99 = wastes from the MFSU of plastics, synthetic rubber and man-made fibres:  
wastes not otherwise specified  
MFSU = manufacture, formulation, supply and use

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..

## Section 14. Transport information

### 14.1 UN number or ID number

ADR/RID, IMDG, IATA-DGR:

not applicable

### 14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

Not restricted

### 14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:

not applicable

### 14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

not applicable

### 14.5 Environmental hazards

Dangerous for the environment:

Substance/mixture is not environmentally hazardous according to the criteria of the UN model regulations.

Marine pollutant:

no

### 14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

### 14.7 Maritime transport in bulk according to IMO instruments

No data available

## SECTION 15: Regulatory information

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

#### National regulations - EC member states

Further regulations, limitations and legal requirements:

No data available

### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

## SECTION 16: Other information

Department issuing data sheet:

see section 1: Department responsible for information

# SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

## Kimya TPU-R

Material number 1229

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### 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  
EU: European Union  
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  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
TRGS: Technical Rules for Hazardous Substances  
vPvB: Very persistent and very bioaccumulative

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 programmes for employees.

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