



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

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

1.1 Product identifier

Trade name

WINDFORM® RL

1.2 Relevant identified uses of the substance or mixture

Laser sintering

1.3 Details of the supplier of the safety data sheet

Address

CRP TECHNOLOGY SRL
VIA CESARE DELLA CHIESA, 150/C
41126 MODENA
ITALY
Telephone +39 059 / 821135
Fax +39 059 / 822071

Email: info@crp.eu

1.4 Emergency telephone number

+39 059 / 821135 – Office hours Monday-Friday 8.00am-12.30pm / 1.30pm-5.00pm

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification information

This product does not meet the classification and labelling criteria given in the Regulation (EC) N° 1272/2008 (CLP).

This product does not meet the classification and labelling criteria given in the Dangerous Preparations Directive (1999/45/EC; DPD).

2.2 Label elements

Not applicable.

Labelling information

The product does not require a hazard warning label in accordance with EC Directives.

2.3 Other hazards

No data available.



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization

Thermoplastic Elastomer based on Polyester > 99%.

Hazardous ingredients

Contained substances classified as hazardous to health according to Directive 67/548/EEC as amended, or for which there are recognized exposure limits: None.

Contained substances classified as hazardous to health according to Regulation 1272/08 as amended, or for which there are recognized exposure limits: None.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persistent adverse effects, consult a physician. Remove contaminated clothing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

After contact with skin, wash immediately with soap and water. Remove contaminated clothing. Potential skin irritation caused by rubbing.

After contact with molten product, cool quickly with cold water. Do not pull solidified product from skin. Seek medical attention.

After eye contact

Remove contact lenses, if present. Open eyelids widely, rinse immediately the eyes with plenty of water (15 min.). In case of persistent adverse effects, consult a physician.

Potential irritation caused by rubbing.

After ingestion

Seek medical advice immediately. Rinse immediately the mouth with plenty of water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

- 4.3 Indication of any immediate medical attention and special treatment needed**
No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water mist, extinguishing powder, carbon dioxide (CO₂), alcohol resistant foam.

Unsuitable extinguishing media

Water jet.

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following could be produced: Carbon dioxide (CO₂); Carbon monoxide (CO); toxic/irritating/flammable products resulting from the combustion of organic substances.

The minimum explosive concentration of dust in the air is 20 grams per cubic meter. Dust control and good housekeeping are required. Dust may also carry a static charge. Make sure equipment and personnel are grounded to avoid static discharge.

5.3 Advice for firefighters

Protective clothing and self-contained breathing apparatus.

Collect contaminated fire extinguishing water. This must not be discharged into drains. Fire will produce dense black smoke containing hazardous combustion products (see section 10). Wear self-contained breathing apparatus for firefighting if necessary. Cool containers / tanks with water spray.

Minimum ignition energy: 5-20 mJ

Minimum explosive concentration (LEL): 20-70 g/m³

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in Sections 7 and 8. Ensure adequate ventilation. Avoid dust formation. Keep away sources of ignition.

For emergency responders

Personal protective equipment - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

Dispose of waste product or used containers according to local regulations.

Do not use a dry brush as dust clouds or static can be created.

Contain and collect spillage with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see Section 13).

6.4 Reference to other sections

See as prescribed in the Section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area, avoid any contact with the skin and the eyes, avoid the formation and deposition of dust.

Provide adequate dust extraction in the working area.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Provide eye wash fountain in work area. Do not inhale dust.

Use barrier skin cream. Areas of the skin soiled with dust are to be cleaned immediately with soap and water, as the powder draws out natural moisture from the skin.

Advice on protection against fire and explosion

Dust can form an explosive mixture with air.

Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep containers dry, tightly closed, at temperatures between 5 and 35°C and relative air moisture of 20 – 70%.

Requirements for storage rooms and vessels

Store product in the original and tightly closed containers.

Advice on storage assembly

None known.

7.3 Specific end use(s)

No data available.

Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

ACGIH Limits		
<i>Hazardous substance</i>	<i>TLV-TWA (mg/m³)</i>	<i>TLV-STEL * (mg/m³)</i>
Inhalable dust	10	--
Respirable dust	3	--

Dir. 2000/39/EC Limits		
<i>Hazardous substance</i>	<i>8 hours (mg/m³)</i>	<i>Short term (mg/m³)</i>
Inhalable dust	--	--
Respirable dust	--	--

8.2 Exposure controls

Appropriate engineering controls

Wear respiratory protection mask in presence of improper ventilation or prolonged exposure to dust.

Personal protective equipment

Respiratory protection

Use respiratory protection mask with P3 particulate filter in presence of dust.

Eye / face protection

Use safety glasses with side shields (EN 166).

Hand protection

Use protective gloves (DIN EN 374). Before use, the protective gloves should be tested in any case for its specific workstation suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves. In case of thermal processing, thermally insulating protective gloves (EN407) are to be used.

Other

Wear a fully closed suit fire retardant. Closed ESD safety footwear with conductive soles (ESD according to EN 61340-4-3 or equivalent).



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

Skin protection

Fully closed suit.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour	
Powder	
White	
Odour	
odourless	
Odour threshold	
Not applicable	
pH value	
Not applicable	
Boiling point / boiling range	
No data available	
Melting point / Freezing point	
No data available	
Melting point / melting range	
Value	188 -195 °C
Decomposition point / decomposition range	
Value	> 275°C
Flash point	
200°C	
Minimum ignition energy	
Value	5-20 mJ
Auto-ignition temperature	
No data available	



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

Oxidising properties	
No data available	
Explosive properties	
Avoid dust formation. Dust may form explosive mixture in air.	
Flammability (solid, gas)	
No data available	
Lower flammability or explosive limits	
Value	Minimum explosive concentration (LEL): 20-70 g/m ³
Upper flammability or explosive limits	
No data available	
Vapour pressure	
Not applicable	
Vapour density	
Not applicable	
Evaporation rate	
Not applicable	
Relative density	
No data available	
Density	
Value	1,14 – 1,27 g/cm ³
Solubility in water	
Remarks	insoluble
Solubility(ies)	
No data available	
Partition coefficient: n-octanol/water	
No data available	
Viscosity	
No data available	

9.2 Other information

Other information

No data available.



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under expected working conditions.

10.3 Possibility of hazardous reactions

Carbon dioxide, carbon monoxide, NOx can be released at high temperatures or upon burning.

10.4 Conditions to avoid

Avoid dust formation, heat, flames and sparks.

10.5 Incompatible materials

None know.

10.6 Hazardous decomposition products

In case of fire CO, CO₂, NOx, toxic/irritating/flammable products resulting from the combustion of organic substances.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity
No data available
Acute dermal toxicity
No data available
Acute inhalational toxicity
No data available
Skin corrosion/irritation
No data available
Serious eye damage/irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

Reproduction toxicity
No data available
Carcinogenicity
No data available
STOT- single exposure
No data available
STOT- repeated exposure
No data available
Aspiration hazard
No data available
Symptoms related to the physical, chemical and toxicological characteristics
Eye contact may cause mechanical irritation through dust particles. Skin contact may cause mechanical irritation through dust particles.
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Inhalation of dusts may irritate the respiratory tract.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)
No data available
Toxicity to fish (chronic)
No data available
Toxicity to Daphnia (acute)
No data available
Toxicity to Daphnia (chronic)
No data available
Toxicity to algae (acute)
No data available
Toxicity to algae (chronic)
No data available
Bacteria toxicity
No data available



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

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

No data available.

12.7 Other information

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Disposal or recover according to the existing national or local regulations. Remove labels from packages/containers only after thorough washing. Do not discharge product into the environment.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.



Safety Data Sheet

Regulation (EC) n. 1907/2006

Trade name: WINDFORM® RL

Current version: 1.0 issued: 22/05/2017

SECTION 15: Regulatory information

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

Regulation (EC) N° 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.
REACH candidate list of substances of very high concern (SVHC) for authorisation
According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in article 57 and article 59 of REACH (EC) 1907/2006.
Regulation (EC) N° 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances subjected to the provisions of Annex XVII (restriction entries) of the REACH regulation (EC) 1907/2006.

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge and experience. The safety data sheet describes products with a view to the security requirements. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship. As the specific conditions of use of the product does not fall under the knowledge and control of the supplier, the user will be solely responsible for other than uses for which the product was produced.

Notes section 8

*: concentration to which workers can be exposed continuously for a short period with no irritation, chronic or irreversible tissue damage, reduced alertness.

Main bibliographic sources:

ACGIH: Treshold Limit Value.

NIOSH Registry of toxics effects of chemical substances.

I.N.R.S. Fiche toxicologique.