Roboze FLEX-TPE





SECTION 1:

Identification of the substance/mixture and of the company/undertaking

Identification of the substance/preparation

Commercial Name

RUBBER HS

Commercial Code

RUBBER HS KT001

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

Recommended use

3D printer melted wire storage

Industrial use

Uses advised against

All uses not advised in recommended use

1.3. Details of the supplier of the safety data sheet

Company

Keytech Srl Piazzale Sordoni Sandro 60015 Falconara Marittima (AN) Phone +39 071 918096 Fax. +39 0719157004

1.4. Emergency Telephone number

Tel. +39 071 918096

SECTION 2:

Hazards identification

In the polymer blend dangerous ingredients are completely incorporated and surrounded by the polymer matrix, the exposure and the risk related to them are deleted. Therefore the mixture is not dangerous for health and for the environment in the form in which it is placed on the market.

2.1. Classification of the substance or mixture

Physical and chemical effects harmful to human health and the environment:

No other danger

Roboze FLEX-TPE





2.2. Label elements

In the polymer blend dangerous ingredients are fully incorporated by the polymer matrix, exposure and the risk related to them are deleted.

Therefore the mixture is not dangerous for health and for the environment in the form in which it is placed in the market.

EU labelling

free of labelling in accordance with reg. [EC] 1272/2008 - the attachment point 1.3.4. The product is not considered dangerous according to the Regulation [EC] 1272/2008 [CLP].

Symbols

None

Indications of danger

None

Safety advice

None

Special provisions

None

Special provisions according to Annex XVII of the REACH and subsequent

None

adjustments

2.3. Other hazards

None

Substance vPvB

None

Substance PBT

No other dangers

Other dangers

SECTION 3:

Composition/information on ingredients

3.1. Substances

N/A

3.2. Mixtures

Dangerous components according to the CEE Regulation 67/548 and CLP

N/A





SEZIONE 4:

First aid measures

Revision Date 07/03/2016

4.1. Description of first aid measures

In the case of direct contact with the skin

Wash thoroughly with water and soap.

In the case of direct contact with the eyes

Wash immediately and thoroughly with water and consult a doctor

In case of ingestion

Do not induce vomiting. OBTAIN IMMEDIATE MEDICAL ATTENTION

In case of inhalation

Move to fresh air, in the warmth to rest

4.2. Most important symptoms and effects, both acute and delayed N/A

4.3. Indication of any immediate medical attention and special treatment needed N/A

Revision Date 07/03/2016



SECTION 5:

Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water. Carbon Dioxide (CO2)

Extinguishing media which must not be used for safety reasons:

- None in particular.

5.2. Special hazards arising from the substance or mixture

- Do not inhale gas produced by the explosion and by the combustion.
- The combustion produces heavy fumes.

5.3. Advice for firefighters

- Wear self-contained breathing apparatus adequate.
- Separately collect contaminated water used to extinguish the fire. Do not discharge in the drains/sewages.
- If possible under the security profile, move from the immediate endangered area the non damaged containers.

SECTION 6:

Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Wear personal protective equipment.
- Remove source of ignition.
- See protective measurements explained in point 7 and 8.

6.2.Environmental precautions

- Prevent further leakage or spillage if safe to do so.

6.3. Methods and materials for containment and cleaning up

- Use mechanical handling equipment, avoid creating dust. Sweep up the spillage and shovel into suitable containers for disposal.

6.4. Reference to other sections

- See paragraph 8 and 13

Roboze FLEX-TPE





SECTION 7:

Handling and storage

7.1. Precautions for safe handling

- Avoid contact with skin and eyes, inhalation of vapours and mists.
- Do not drink or eat while working.
- Please refer to section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drinks and animal feed.

Incompatible materials:

None in particular. See also paragraph 10 below.

Rooms adequately airy

Rooms adequately aerated.

7.3. Specific end uses

No particular usage.

SECTION 8:

Exposure controls/personal protection

8.1. Control parameters

Exposure limits DNEL N.A.
Exposure limits PNEC N.A.

8.2. Exposure controls

Eye protectionNot required under normal use conditions.

Still operate according to good working

practices

Skin Protection Not required under normal use conditions

Hand protection Not required under normal use conditions

Respiratory protectionNot required under normal use conditions

Thermal risks None

Environmental exposure controlsNone

Suitable technical controls None

Roboze FLEX-TPE





SECTION 9:

Physical and chemical properties

9.1. Information on basic physical and chemical properties

Colors Different **Aspects** Cylindrical wire **Smell** weak/light characteristics **Thresold Odor** N.A. рН N/A **Melting/freezing point** 190÷240°C Initial boiling point and boiling range N/A Inflamable solid/gas N/A **Upper/lower limit of inflammability** N/A **Density of vapor** N/A **Relative density** 1.10/1.30 g/cm3 **Water solubility** Insolubile

Solubility in oil

N/A

Partition coefficient (n-octanol/water)

N/A

Viscosity

N/A

Explosive properties

N/A

Oxidising properties

N/A

Roboze FLEX-TPE





9.2. Other information

Miscibility N/A Liposolubility N/A Conductivity N/A Characteristics properties of the group of N/A substances

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions

10.5. Incompatible materials

None in particular

10.6. Hazardous decomposition products

Tetrahydrofuran

Roboze FLEX-TPE





SECTION 11:

Toxicological information

In the polymer blend dangerous ingredients are completely incorporated and surrounded by the matrix polymer, exposure and the risk related to them are completely eliminated. Therefore the mixture is not dangerous for health and for the environment in the form in which it is placed on the market.

11.1. Information on toxicological effects

Toxicological information on the mixture N/A

Toxicological information regarding the principal substance present in the mixture

N/A

Unless otherwise specified, the information required by **Regulation 453/2010/EC** listed below must e understood as N.A.:

Acute toxicity
Corrosion/irritation
Serious eye damage/eye irritation
Respiratory or skin sensitization
Germ cell mutagenicity
Carcenogenicity
Reproductive toxicity
Specific target organ toxicity (STOT) - single exposure
Specific target organ toxicity (STOT) - repeated exposure
Danger in case of inhalation





SECTION 12: Ecological information

12.1. Toxicity

Use according to good working practices, avoiding the release of the product in the environment

N/A

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

Substance vPvB: None - Substance PBT: None

12.6. Other adverse effects

None

SECTION 13:

Disposal considerations

13.1. Waste treatment methods

Recover if possible. Operate according to local and national regulations.



Revision Date 07/03/2016

SECTION 14:

Transport information

14.1. Number ONU (UN)

No dangerous goods as defined by the transport regulations

14.2. ONU (UN) shipping name

N.A.

14.3. Transport hazard class

N.A.

14.4. Packaging group

N.A.

14.5. Environmental hazard

N.A.

14.6. Special provisions for the users

N.A.

SEZIONE 15:

Regulatory information

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

D.lqs 9/4/2008 n.81

D.M. Work 26/02/2004 (occupation exposure limits)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (UE) n. 758/2013

Regulation (UE) n. 453/2010 (attached II)

Regulation (UE) n. 286/2011 (ATP 2 CLP)

Regulation (UE) n. 618/2012 (ATP 3 CLP)

Restrictions relating to the product or contained substances pursuant to Annex XVII to Regulation (EC) 1907/2006 (REACH) subsequent adjustments:

Restrictions relative to the product:

None

Roboze

Revision Date 07/03/2016

Where applicable, refer to the following standards:

Ministerial circulars 46 e 61 (Aromatic amines)
D.Lgs 21 September 2005 n. 238 (Direttiva Seveso Ter)
Reg. (EU) n. 528/2012 (Biocides)
Regulation (EU) n.487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)

Provisions relating to directives 82/501/EC (Seveso, 96/82/EC (Seveso II):

N.A.

15.2. Chemical Safety Assessment

N.A.

SECTION 16: Other information

This document was prepared by a competent in the field of person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre. Commission of the European Communities.

SAX'S DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold CCNL - Attached 1

Higher Institute of Health - National Chemical Inventory

The information contained herein is based on our knowledge as of the date indicated. They refer solely to the product indicated and constitute no guarantee of particular quality. The user is obliged to check the suitability and completeness of such information in relation to the specific use intended. This sheet eliminates and supersedes any previous edition.

All mineral base oils contained in this product have a value < 3% w DMSO extract according to IP 346/92 (Note I - Dir. 94/69/EC - European Regulation 1272/2008). It is shown below the text of the note of the European Regulation 1272/2/2008:

Roboze FLEX-TPE

Roboze

Revision Date 07/03/2016

The classification as a carcinogen needs not apply it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl extraction refractive index method". Institute of Petroleum, London. This note applies only or certain complex oil-derived substances in Part 3.

ADR: European Agreement concerning the international road transport of dangerous goods. CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labelling, Packaging.

DNEL: Derived No-Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances European. GetStoffVO: Ordinance on Hazardous Materials in Germany.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

IATA: International Air Transport Association.

IATA – DGR: Dangerous Goods Regulation of the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization.

ICAO - TI: Technical Instructions of the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Coefficient Explosions.

LC50: Lethal Concentration for 50% of test population.

LD50: Lethal Dose for 50 % of test population.

LTE: Long-Term Exposure.

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail.

STE: Short-Term Exposure.

STEL: Short-Term Exposure Limit.

STOT: Specific Organ Toxicity.

TLV: Threshold Limit Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hours. (ACGIH Standard).

WGK: Hazard class for water (Germany).

Rev. O of 07.03.2016 Document complies to Regulation (EC) N.1907/2006: Regulation (EU) N.453/2010.