SAFETY DATA SHEET

TECNOPRENE®

Safety Data Sheet in accordance with:
Regulation (EC) No. 1907/2006
Regulation (UE) No. 453/2010

Issue date: 10/01/2014	Revision date: --/--/----	Version n. 1.00 English

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Material: reinforced polypropylene, natural color.
Trade name:

TECNOPRENE A60K6 NAT001

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

Industrial production of thermoplastic items

1.3 Details of the supplier of the safety data sheet

Manufacturer :	**SO.F.TER. SPA**
Address:	Via Mastro Giorgio, 1 47122 Forlì - FC - Italy
Phone :	+39 0543 790411
Fax :	+39 0543 473119
e-mail :	softer@softerspa.com
e-mail of the competent person responsible for the SDS	leonardo.bellomo@softerspa.com

1.4 Emergency Telephone number

Available only in office time:	+39 0543 790411

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

This mixture was not tested. The provided information regarding the effects in the widest sense of this product on health and in plants are obtained from the information about individual components using the conventional calculation procedure described in the Dangerous Preparations Directive (1999/45/EC) and in the european regulation N°1272/2008.

For this product there is no need for classification as, according to European Directive 1999/45/CE, it is non-hazardous; nevertheless this mixture may contain hazardous components, yet listed as ingredients in tabs at point 3, which, alone or considered in a mixture, can cause reactions not fully tested at the time.

2.2 Label elements

The product does not require a hazard symbol label in accordance with Directive 1999/45/CE and the european regulation N°1272/2008 criteria.

	Classification	Risk phrases	Safety phrases	Signal word
Directive 1999/45/CE	-	-	-	-
Reg. (CE) N. 1272/2008	-	-	-	-

2.3 Other hazards

PBT/vPvB assessment:

The product does not contain any substance meeting the criteria for PBT (persistent, bioaccumulable, toxic) or vPvB (very persistent, very bioaccumulable) in an amount greater than or equal to 0.1 wt% in accordance with Annex XIII to Regulation (EC) No. 1907/2006 (REACH).

Safety standards and good practices in protection, treatment, handling and use of chemicals must be observed.

- The material is in the form of pellets and if it is used correctly there are no significant risks.
- There is a risk of slipping if the material is spilled on the floor.
- During processing, fumes or vapours may be generated that must not be inhaled. Consequently a suitable suction apparatus is needed.
- The molten material may cause burns and flames
- During handling, dust and airborne particles may be generated which can cause mechanical irritation to eyes, skin and mucous tissues. The grinding of moulded parts may accentuate these phenomena; hence, avoid inhalation of any dust present in the workplace.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Polymer: Polypropylene

Additives: Continuous Filament Glass fibres (CFGF) and zinc sulphide.

Note: CFGF products are articles. CFGF products embedded into plastic matrix (pellets) keep their status of article, (see regulation EC No. 1907/2006/EC – Annex 2)

(Further information on composition is to be found in the Technical Literature).

Substances to be mentioned:

The preparation contains substances which, with regard to concentration and typology, belong to the dangerous categories below specified:

Hazardous substances:

Chemical name	Conc. Range wt%	N. CE	N. CAS	Classification according to Dir. 67/548/CEE		Reach
				Symbols	R-phrases	
-	-	-	-	-	-	-

Chemical name	Conc. Range wt%	N. CE	N. CAS	Classification according to Reg. EC. 1272/2008		Reach
				Signal words	H-phrases	
-	-	-	-	-	-	-

For the complete text of risk phrases and hazard statements see section 16.

Note. Components are completely incorporated and embedded in the polymeric matrix. In normal processing conditions they are expected not to be soluble in water and not to be harmful to aquatic organisms.

Substances for which occupational exposure limits have been fixed by European Community:

Chemical name	Conc. Range wt%	EC Number	CAS Number	Symbols/ R-phrases	H-phrases
Glass fibers	25-35	N.A.	N.A.	none	none
Zinc sulphide	0.1-0.6	215-251-3	1314-98-3	none	none

Note. The powders possibly present as components in the mixture are completely incorporated and embedded in the polymeric matrix, so that the potentially correlated exposition and risk fail.

4. FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Contact with eyes

Solid material: Flush eyes with plenty of water, keeping the lids open. If irritation persists get medical attention.
Molten material: Immediately cool the affected area by means of large amounts of water or ice. Get medical attention.

4.1.2 Contact with skin

Solid material: no danger. Wash exposed skin with water and soap.
Molten material: Immediately cool the affected area by means of large amounts of water or ice.
Get medical attention.

4.1.3 Inhalation

Solid material: no danger.
Molten material: in case of abnormal inhalation of fumes or vapours, remove the affected person to fresh air. In case of breathing problems obtain medical attention.

4.1.4 Ingestion

Solid material: the material is inert and not digestible.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: no specific symptoms from exposure are known. During handling, dust and airborne particles may be generated which can cause mechanical irritation to eyes, skin and mucous tissues. The grinding of moulded parts may accentuate these phenomena; hence, avoid inhalation of any dust present in the workplace.
Hazards: the product is provided in pellet form and, if correctly used, it does not cause any significant risks. Solid material does not cause any danger. There is a risk of slipping if the material is spilled on the floor. The molten material may cause burns. Avoid inhalation of fumes and vapours released during the melting process.

4.3 Indication of any immediate medical attention and special treatment needed

See symptom treatment at point 4.1.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: water spray, foam, carbon dioxide, powder.
Unsuitable extinguishing media: none

5.2 Special hazards arising from the mixture

In case of fire carbon dioxide and, failing oxygen, carbon monoxide develop and other dangerous, irritating and/or toxic combustion products can be released. Avoid inhalation of combustion fumes.

5.3 Advice for fire-fighters

Use self-contained breathing apparatus and wear fireproof clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Special measures are not required.

6.2 Environmental precautions
Avoid releasing into environment.

6.3 Methods and material for containment and cleaning up
In the event of a spill, collect the product up with mechanical means, being careful not to create dust. Collect and preserve in closed containers. For disposal, follow instructions of section 13.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
The material handled at room temperature is not dangerous for operator's health. Normal industrial procedures should be followed.
During handling, avoid the formation of dust. Take appropriate measures to prevent electrostatic discharges.
Avoid material spilling on the floor.
Avoid ignition sources.
During the melting process avoid fume and vapour inhalation; consequently a suitable suction apparatus is needed.
Do not eat, drink and smoke in work areas.
Wash hands after use.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities
The product can be stored in bags, octabins, big bags, containers, silos. Keep the product dry and away from heat and potential ignition sources. Do not smoke or use fires where the product is stocked.

7.3 Specific end use(s)
Do not use the product for uses different from the ones identified in section 1.2.
No further recommendations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Exposure limit values

Component chemical name	Exposure limit	Notes
PNOS	3 mg/m^3	TLV-TWA ACGIH Respirable dust
	10 mg/m^3	TLV-TWA ACGIH Total inhalable dust

PNOS= Particulates Not Otherwise Specified

For the respirable fraction of **inert dust** the following data regarding occupational exposure limits (OEL-TWA/ 8 hours in mg/m^3) are available:

Country	Inert dust
Austria (MAK) Maximale ArbeitsplatzKoncentration	6
Belgium	3
Bulgaria (OEL)	4
Cyprus	/
Czech Republic	
Denmark TLV	5

Estonia	
Finland OES (Occupational exposure standard)	
France Empoussiérage de réference	
France VME (Valeur limit de Moyenne d'Exposition)	5
Germany MAK	3
Greece	5
Hungary	
Ireland	4
Italy TLV based on ACGIH TLVs	3
Lithuania (IPRV) (ilgalaikio poveikio ribine verte)	10
Luxembourg MAK	6
Malta OELVs (refer to UK)	/
Netherlands publieke grenswaarden	5
Norway	5
Poland	
Portugal (VLE) valores limites d'exposiçao	5
Romania OEL	10
Slovakia	
Slovenia	
Spain VL valores limites	3
Sweden Yrkeshygieniska Gransvarden	5
Switzerland VME	6
UK WEL (workplace exposure limits)	4

With regard to **Zinc Sulphide powder:**

Component chemical name	Exposure limit	Notes
Zinc sulphide	3 mg/m^3	MAK (A)
	15 mg/m^3	ACGIH TLV
	15 mg/m^3	OSHA/PEL

With regard to **Continuous Filament Glass Fibres** the following occupational exposure limits are given:

Country	Dusts	TWA mg/m^3 for 8 hours work	Fibres	TWA Fibres/ml for 8 hours work
Austria	Fine	6	Total	0.5
Belgium	Total	10	No Regulation	
Denmark, Norway, Sweden	Respirable Total	5 10	Total	1
Finland	Total	10	Total	1
France	Total	10	Respirable	1
Germany	Respirable	3	Respirable	0.25
Great Britain	Respirable Total	5 10	Respirable	2
The Netherlands	Respirable Total	2 10	Total	1
Ireland	Respirable	5	Respirable	2
Italy	Respirable Total	3 10	Total	1
Portugal	Total	4	Total	1
Spain	Total	10	Total	1
Switzerland	Total	6	Respirable	0.5
USA	Respirable Total	5 (OSHA) 10 (OSHA)	Total	1 (ACGIH)

The powders possibly present as ingredients in the mixture are completely incorporated and embedded in the polymeric matrix, so that they cannot come out in any way. For this reason the potentially correlated inhalation and exposure risks fail.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

(see also point 7.1)

While handling the pellets and grinding the moulded parts, remove any dust in the workplace with an appropriate exhaust system, and use suitable protective masks.

During thermal processing, especially at temperatures higher than the recommended ones, traces of monomers can develop. During extrusion or moulding, remove fumes and vapours with appropriate exhaust systems.

For the atmospheric emission of fumes and contaminants produced during the processing of the plastics, comply with the limits imposed by the competent authorities and the local and national legislation.

8.2.2 Individual protection measures, such as personal protective equipment

a) Eye protection

During handling, it is advisable to wear safety glasses whenever there is dust. During processing, it is advisable to wear a visor to protect the face whenever there is molten material. With no aspiration system use suitable safety eyeglasses.

b) Skin protection

During handling, it is advisable to wear gloves and appropriate protective coveralls and suits whenever there is dust or molten material.

c) Hand protection

Solid material: wear appropriate gloves.
Molten material: wear appropriate heat-resistant gloves.

d) Respiratory protection

During handling and the processing of the material, it is advisable to use a protective mask whenever there are dust or gas/vapours.

8.2.3 Environmental exposure controls

Make sure that the concentration of organic volatile substances collected by the aspiration system is in compliance with the authorized emission limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance :	solid cylindrical pellets. Pellets might be dusted by a non-hazardous anti-blocking powder agent	
Odour :	light and characteristic	
Odour threshold:	not tested.	
pH:	N.A.	
Melting point/range:	140÷200°C	Method: DSC, ASTM D 3418
Initial boiling and boiling range:	N.A.	
Flash point:	N.D.	
Evaporation rate:	N.A.	
Flammability (solid):	N.D.	
Upper/lower flammability or explosive limits:	N.A	
Vapour pressure:	N.A.	
Vapour density:	N.A.	

Relative density:		0,88÷1,25 g/cm^3 (23°C) Metodo: ASTM 792
Solubility:	water solubility	Insoluble
	fat solubility	N.A.
Partition coefficient:	n-octanol/water:	N.A.
Auto-ignition temperature:		≥ 350°C
Decomposition temperature:		≥ 300°C Method: TGA
Viscosity:		N.A.
Explosive properties:		N.A.
Oxidising properties:		N.A.

9.2 Other information

Bulk density: Not determined

10. STABILITY AND REACTIVITY

10.1 Reactivity

See point 10.3

10.2 Chemical stability

The material is stable under normal conditions.

10.3 Possibility of hazardous reactions

None with the exception of combustion and thermal degradation.

10.4 Conditions to avoid

See also section 7 for handling and storage conditions.
The product is stable at common use conditions. Avoid heat and ignition sources and static discharges. Comply with the recommendations contained in the technical literature.
Do not heat the product beyond the decomposition temperature.
Processing the material at temperatures over the decomposition temperature (shown in section 9) may generate a degradation process which becomes more serious the longer the material is kept in the cylinder.
The material may degrade and/or generate dangerous overpressure in the cylinder. In case of degradation inside the cylinder avoid inhaling fumes or gases generated.

10.5 Incompatible materials

None

10.6 Hazardous decomposition products

See point 5.2

11. TOXICOLOGICAL INFORMATION

The mixture is not classified as hazardous for health on the basis of the calculation procedure of Dangerous Preparations Directive 1999/45/EC an European Regulation 1272/2008.

No specific toxicological tests have been performed on this material. The estimate is made based on information on similar products, on ingredients, on professional experience and on technical literature.
According to our experience, the product poses no health hazard if it is properly handled and utilized in accordance with the provided indications.

11.1 Information on toxicological effects

11.1.2 Mixtures

a)	**Acute Toxicity:**	N.A
	Acute oral toxicity	N.A

	Acute dermal toxicity	N.A
	Acute inhalation toxicity	N.A
b)	**Irritation**	N.A
	Irritant effect on skin	N.A
	Irritant effect on eyes	N.A
c)	**Corrosivity**	N.A
d)	**Sensitisation**	N.A
e)	**Repeated dose toxicity**	N.A
f)	**Carcinogenicity**	N.A
g)	**Mutagenicity**	N.A
h)	**Toxicity for reproduction**	N.A

Hazard data concerning components

With regard to **Zinc Sulphide powder** the following data are available:

ACUTE TOXICITY	
Oral LD_{50} , rat	> 2000 mg/kg
Dermal LD_{50} , rat	> 2000 mg/kg
Inhalation LC_{50}/4h, rat	>5040 mg/l
PRIMARY IRRITATION	
Skin:	non irritating effects
Eyes:	not particularly irritating
Ingestion:	may be harmful if swallowed
Inhalation:	may be harmful if inhaled
Sensitization:	no sensitizing effects are known
Local effects:	the product is not toxic

In literature it is demonstrated that Zinc Sulphide is not mutagenic and/or genotoxic

With regard to **Continuous Filament Glass Fibres** the following data are available:

ACUTE TOXICITY: CFGFs in the form in which are placed on the market are non hazardous to health if inhaled, swallowed, or in contact with skin. During processing glass-dust may be generated which however poses no risk hazards if exposure limits for dust in general (total inhalable dust or respirable dust) are observed.

LOCAL EFFECTS: Glass fibres may cause irritation to eyes, skin, and to respiratory tract. Ingestion causes irritation to superior respiratory tract and gastrointestinal disorders.
Glass fibres are not respirable having a diameter superior to 3 micrometer and cannot reach the lungs in depth.
Since the irritation possibly caused by this fibres is a simple mechanical one and is not chemical in Regulation EC No. 790/2010 (ATP1 of REG 1272/2008/EC) they are no more classified as irritant.

CARCINOGENICITY EFFECTS: Glass Fibre contained in this mixture as ingredient is classified:

- by WHO (World Health Organization) as “Fibre Glass, Continuos Filament”
- by REG 1272/2008/EC as “Mineral Wool” and with regard to long term toxic effects is classified
- non carcinogenic according to European directives on force (REG. (EC) 1272/2008/CE - Annex VI §1.1.3 - Note R and further amendments - See quotation in section 16)

- by IARC (2002) as belonging to group 3 (not classifiable as carcinogenic for humans)
- by ACGIH as belonging to category A3 (carcinogenic for animals)

12. ECOLOGICAL INFORMATION

There are no known damaging effects on the environment. The product is not dangerous, but it can have physical effects on aquatic and terrestrial organisms when ingested.

12.1 Toxicity: N.D.

12.2 Persistence and degradability: The product is non- biodegradable

12.3 Bioaccumulative potential: N.A.

12.4 Mobility in soil: N.A.

12.5 Result of PBT and vPvB assessment: A chemical safety report is not required.
The product does not contain any substance meeting the criteria for PBT (persistent, bioaccumulable, toxic) or vPvB (very persistent, very bioaccumulable) in an amount greater than or equal to 0.1 wt% in accordance with Annex XIII to Regulation (EC) No. 1907/2006 (REACH).

12.6 Other adverse effects: N.A.

Ecotoxicological data concerning components:

With regard to **Zinc Sulphide powder** the following data are available at present:

Ecotoxicity:
Aquatic Toxicity

Carassius auratus auratus LC_{50}	> 5.155 mg/l OECD 203
Daphnia EC_{50}	> 0.34 mg/l ZnS OECD 202
Mobility:	N.A.
Persistence and degradability:	N.A.
Bioaccumulative potential:	N.A.

PBT assessment data: the substance is not PBT.
Other hazardous effects: The product is almost insoluble in water and does not cause hazardous effects on environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
The material can be recovered or recycled, disposed in incinerator or dump according to regulations in force and local dispositions.
Dispose of packaging and waste product in accordance with local and national regulations.
Avoid sewage disposal.
Be aware of combustion products which may be produced during incineration.

14. TRANSPORT INFORMATION

There are no restrictions on transport.
The product is not hazardous according to national and international regulations governing road, railway, sea and air transport. As the preparation is not dangerous to the environment in the form in which it is placed on the market there are no restrictions on transport. The product is not dangerous according to national and international regulations governing road, railway, sea and air transport.

ADR	N.A
RID	N.A
IMDG	N.A
ICAO/IATA	N.A

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
None

Other regulations:
Directives 88/379/EC, 67/548/EC, 91/156/EC, 91/689/EC, 94/62/EC, 1999/45/EC and 2001/60/EC
Italian dispositions:
DPR 303/56, D.Lgs 81/08, D.Lgs 106/09, D.Lgs 22/97, D.Lgs 52/97, D.Lgs 65/03.

15.2 Chemical safety assessment
No Chemical Safety Assessment (CSA) is yet available for the component substances, contained in this product.

16. OTHER INFORMATION

The present safety data sheet has been drawn up according to Regulation (EC) No. 1907/2006 (REACh) and Regulation (UE) No. 453/2010

Complete text of **Risk phrases**: none

Complete text of **Signal words** and **Hazard statements**: none

Professional considerations: refer to internal training plans of the company.

Data sources.
A.C.G.I.H.
Decree of Italian ministry for Health 14/6/02 (received Directive 2001/59/EC)
Directive 2000/39/CE.
Internal analysis
ESIS : European chemical Substances Information System
Raw material MSDSs

Other information:

Here below the text from REG. (EC) 1272/2008, Annex VI, Paragraph 1.1.3 Note R is quoted:

“The classification as a carcinogen need not apply to fibres with a length weighted geometric mean diameter less two standard geometric errors greater than 6 μm”

Definitions

TLV-TWA = Threshold Limit Value – Time Weighted Average: Time Weighted Average: average concentration calculated based on a time of 8 hours (working day) and on 40 hours a week to which workers can be exposed without negative effects
TLV-STEL = Threshold Limit Value – Short-Term Exposure Limit: Limit: concentration to which workers can be exposed for a short time (15 minutes) and for no more than 4 times a day.
TLV-C = Threshold Limit Value – Ceiling: concentration that must not be exceeded whilst working, even for extremely short periods.
WEEL = Workplace Environmental Exposure Level: Time Weighted Average on a time of 8 hours (TWA)

Abbreviations:

ACGIH	= American Conference of Governmental Industrial Hygienists
CMRG	= Chemical Manufacturer Recommended Guideline
IARC	= International Agency for Research on Cancer
INRS	= Institut National de Recherche et de Securite
NIOSH-REL	= National Institute of Occupational Safety and Health
OSHA	= Occupational Safety and Health Administration
PNOS	= Particulates Not Otherwise Specified
PNOR	= Particulates Not Otherwise Regulated
PNOC	= Particulates Not Otherwise Classified
MAC	= Maximaal Aanvaarde Concentraties (Maximum permissible concentration)
MAK	= Maximale Arbeitsplatz-Konzentration (maximum workplace concentration)
PEL	= Permissible Exposure Limit
OEL	= Occupational Exposure Limit
OES	= Occupational Exposure Standard (UK)
REL	= Recommended Exposure Level
STEL	= Short Term Exposure Limit TLV: Threshold Limit Value
TRGS	= Technische Regeln für Gefahrstoffe (technical regulatory limit for hazardous substances)
TWA	= Time Weighted Average (average concentration calculated based on a time of 8 hours (working day) unless otherwise specified)
VME	= Valeur Moyenne d'Exposition (Average exposure level)
WEL	= Workplace Exposure Limit
N.A.	= not applicable.
N.D.	= not available.

Modified paragraphs with references to previous compilation:

First issue

The information and recommendations contained in this SDS are based on our best available knowledge and belief, on our own experience and on information received from our suppliers, and are intended to provide indications concerning safety regulations and to aid the user in controlling the handling risks. Therefore they cannot be considered as a warranty or specification of the product quality. Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.
It is the user's responsibility to take the necessary precautionary measures to safeguard the health of the workers, complying with the national and local laws in force regarding safety in the workplace.
Distributors and users of the material must pass this safety data sheet on to all persons involved in the handling and processing of this material.