

SIBUR TOBOLSK LLC

SAFETY DATA SHEET

According to Regulations (EC) 1907/2006 (REACH), (EC) 1272/2008 (CLP) & (EU) 2015/830

POLYPROPYLENE (PP)

GRADES:

PP H030 GP/3; SIBEX PP H031 BF/3; SIBEX PP H033 FF/3; SIBEX PP H036 BF/3;
PP H040 GP/3; SIBEX PP H043 FF/3; SIBEX PP H063 FF/3; PP H120 GP/3; PP H140 GP/3;
PP H250 GP/3; SIBEX PP H253 FF/3; SIBEX PP H263 FF/3; SIBEX PP H270 FF/3;
SIBEX PP H350 FF/3; SIBEX PP H363 FF/3

Version: 2.1
Date created: 06/09/2019

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1. Product identifier

Product form:	Substance
Substance name:	Polypropylene
Chemical name:	Poly (prop-1-ene)
EC index No.:	Not applicable
EC No.:	None
CAS-No.:	9003-07-0
REACH registration No:	Not applicable
Formula:	(C ₃ H ₆) _n
Synonyms:	Polypropylene, 1 –Propene homopolymer
Trade names:	PP H030 GP/3; SIBEX PP H031 BF/3; SIBEX PP H033 FF/3; SIBEX PP H036 BF/3; PP H040 GP/3; SIBEX PP H043 FF/3; SIBEX PP H063 FF/3; PP H120 GP/3; PP H140 GP/3; PP H250 GP/3; SIBEX PP H253 FF/3; SIBEX PP H263 FF/3; SIBEX PP H270 FF/3; SIBEX PP H350 FF/3; SIBEX PP H363 FF/3

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

1.2.1. Relevant identified uses

Use of the substance/mixture: Identified use(s): Use in production of articles for technical and domestic purposes (sheets, films, strips, fibres, pipes, fittings, filaments, tape yarn, wrappings, nonwoven fabric), technical goods for medical and food industry and for consumer use

Most common technical function of substance: Films

1.2.2. Uses advised against

Restrictions on use: Uses other than those given in section 1.2.1 are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name: SIBUR Tobolsk LLC
Address: Promzona, 626150, Tobolsk, Tyumen region, Russian Federation
Contact phone: +7 (3456) 266-000
Fax: +7 (3456) 266-449

Email Address: office-sibt@tobolsk.sibur.ru; servicedbp@sibur.ru
 Emergency Telephone: +7 (3456) 398-755; +7 (3456) 398-056 (office hours only)
Importer: List of importers is available with the Only Representative

1.4. Emergency telephone number

Emergency phone in the country of delivery **112** (Please note that emergency numbers may vary depending upon the country of delivery though 112 remains valid as universal number)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP): Not applicable.
 Signal word (CLP): Not applicable.
 Hazard statements (CLP): Not applicable.
 Precautionary statements (CLP): Not applicable.
 EUH-statements: Not applicable.

2.3. Other hazards

Other hazards not contributing to the classification: No significant health hazard in normal industrial use conditions. Contact with melted/heated product may cause thermal burns. Granulated polypropylene at temperature lower than 150 °C does not emit into the air or environment any toxic substances and causes no harmful influence on human organism at direct contact at room temperature. In the course of polypropylene processing, when heating it up to 150 °C and over, the emission of volatile products of thermal-oxidative degradation is possible (see section 10). Products of thermal-oxidative degradation at long term inhalation cause generic toxic, irritating and allergic effects (see sections 8; 10). Dust may irritate respiratory system, eye irritation. Dust may form explosive mixes with air. Product may be charged electrostatically. Combustible solid. No other hazards identified.

Assessment PBT / vPvB: According to Annex XIII of Regulation (EC) No.1907/2006 (REACH):
 - not fulfilling PBT (persistent/bioaccumulative/toxic) criteria;
 - not fulfilling vPvB (very persistent/very bioaccumulative) criteria.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Name	Product identifier	%	Classification [CLP]
Polypropylene*	(CAS-No.) 9003-07-0 (EC No.) none	> 99.7	none
Additives:			
Carbonato(2-) hexadecahydroxybis(aluminium) hexamagnesium	(CAS-No.) 11097-59-9 (EC No.) 234-319-3 REACH (No) 01-2119489902-26-XXXX	<0.1	none

***REACH Registration data for monomers:**

Registration for Propene
(CAS-No.) 115-07-1
(EC No.) 204-062-1
(EC index No.) 601-011-00-9
(REACH-no) 01-2119447103-50-0051
01-2119447103-50-0052
01-2119447103-50-0195

The product does not contain impurities or additives that could affect product's labelling and classification according to Regulation (EC) No 1272/2008 (CLP).

3.2. Mixtures

Not applicable

SECTION 4. FIRST-AID MEASURES

4.1. Description of first aid measures

Product-specific hazards and other issues

Spontaneous penetration of granulated polypropylene into human organism is impossible. Product at normal conditions is stable and non-volatile.

Warning before intervention: contact with hot product may cause severe thermal burns. Dust and/or thermal decomposition products inhalation may irritate respiratory system, eye irritation.

If eye/skin contact with hot product occurs, obtain immediate medical attention.

First-aid measures general

Move exposed person to fresh air. Keep person warm and at rest. Obtain medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

First-aid measures after inhalation

If there is respiratory distress give oxygen. If respiration stops or shows signs of failing, apply artificial respiration. Get medical attention.

First-aid measures after skin contact

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse. If molten material comes in contact with the skin, do not apply ice but cool under ice water or running stream of water. DO NOT attempt to remove the material from skin. Removal could result in severe tissue damage. Seek medical attention immediately.

First-aid measures after eye contact

Rinse the eye immediately with plenty of water (low pressure) for at least 15 minutes occasionally lifting the upper and lower eyelids. Remove contact lenses. Get medical attention.

First-aid measures after ingestion

Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Obtain medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects:

Symptoms/effects after inhalation:

Dust of polypropylene: inhalation may irritate respiratory system, nasopharyngeal tickling, cough, mucous rhinorrhea.

Thermal decomposition products: dizziness, headache, weakness, drowsiness, fatigue, feeling of intoxication, pallor, reddening of the skin

with a raspberry colour shade, burns, rapid pulse, respiratory depression, shortness of breath, burning sensation in the chest, tearing, nausea, choking, vomiting. In more severe cases - convulsions, loss of consciousness.

Symptoms/effects after skin contact:	Repeated and/or prolonged skin contact may cause irritation. Contact with melted/heated product may cause thermal burns.
Symptoms/effects after eye contact:	Eye contact may cause mechanical damage, irritation of eyes mucous. Contact with melted/heated product may cause thermal burns.
Symptoms/effects after ingestion:	Burning oral mucosa, throat tickling, nausea (when ingesting polypropylene aerosols during dusting) Ingestion/aspiration may cause irritation of digestive tract. May cause gastrointestinal blockage.

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

Advice to physician

If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	Water fog or fine spray, Dry chemical fire extinguishers, Carbon dioxide fire extinguishers, Foam.
Unsuitable extinguishing media	Use only fine spray or water fog for extinguishing polypropylene dust. Do not use direct water jets. Direct water jets on the burning product could cause a steam explosion and spread of the fire. Avoid simultaneous use of foam and water on the same surface because the water destroys the foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard:	The product is not flammable. Will burn if involved in a fire. May be combustible at high temperature.
Explosion hazard:	Polypropylene dust forms explosive mixtures with the air. Pneumatic conveying and other mechanical handling operations can generate combustible dust. Do not permit dust to accumulate to reduce the potential for dust explosions. Low flammability limit for polypropylene dust is 32.7 g/m ³
Hazardous decomposition products in case of fire:	Combustion products: Carbon oxides (CO and CO ₂) and soot. Combustion products may include thermo-oxidative degradation products: carbon oxides, formaldehyde, acetaldehyde, organic acids (acetic acid) and etc. The smoke may contain toxic and /or irritating not identified.

5.3. Advice for firefighters

Firefighting instructions:	Evacuate unnecessary personnel. Extinguish fire keeping safe distance. Cool endangered receptacles with water spray. Collect contaminated firefighting water separately. It must not enter the sewage system.
Protection during firefighting:	Firefighters should wear full protective clothing. Due to potential decomposition of the polymer, firefighters should be equipped with positive pressure self-contained breathing apparatus (SCBA).
Further information:	Spillages of molten material is possible. It makes surfaces slippery.

SECTION 6. ACCIDENTAL RELEASE MEASURE

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures Remove sources of ignition. No smoking. Do not touch or walk through spilt material. Avoid contact with skin and eyes. Avoid inhalation of fumes from molten product. No action shall be taken involving any personal risk or without suitable training. Keep unprotected persons away.

6.1.2. For emergency responders

Emergency procedures In case of fire, barricade the area. Spilled material may cause a slipping hazard. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. Ensure adequate ventilation. Remove sources of ignition. Take precautionary measures against static discharges. Avoid dust generation. Avoid inhalation of dusts. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Do not allow penetration of the product into water reservoirs, surface and ground water, sewer ducts and soil. Preventing disposal into water reservoirs of contaminated water without treatment. Monitor content of hazardous substances in the air. Provide sealing of process equipment. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body. Scattering of and its waste should be timely collected and disposed in specially designated areas. Polypropylene wastes are non-toxic and are not to be neutralized.

6.3. Methods and material for containment and cleaning up

Stop the spill, ventilate suspected area and let evaporate. Vacuum or sweep up. Collect in suitable and properly labelled containers. Minimize generation of dust during clean-up. Transfer to a container for disposal or recovery. Provide ventilation. All equipment must be grounded.

6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling Put on appropriate personal protective equipment (see Section 8). During processing and thermal treatment of the product, small amounts of volatile hydrocarbons may be released. Provide adequate ventilation. Provide input-extract and local ventilation of work zones to ensure that the occupational exposure limit is not exceeded. Regularly control work zone air.

In case of insufficient ventilation, wear suitable respiratory equipment (See Section: 8). Avoid inhalation of dust and decomposition fumes.

Dust from the product gives a potential risk for dust explosion. All equipment shall be grounded. Avoid all sources of ignition. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation.

Dust can be ignited by static discharge. Take precautionary measures against static discharges. Provide thorough sealing and grounding of process equipment. Due to electrostatic properties of the material, grounding of silos and grounding of pneumatic transport equipment are obligatory. Pneumatic conveying and other mechanical handling operations can generate combustible dust. Do not permit dust to accumulate to reduce the potential for dust explosions.

Hygiene measures	<p>Handle in accordance with good industrial hygiene practice. Do not swallow. Avoid direct contact with skin and eyes. Do not ingest or inhale combustion or decomposition products. Workers should be protected from the possibility of contact with molten product. Warning: spilled granules will cause slipping and fall. Wash hands after handling. Observe good industrial hygiene practices. Do not eat, drink or smoke at the work place.</p>
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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep container tightly closed. Keep away from heat, sparks and flame. Protect from direct sunlight, atmospheric precipitation and incompatible substances.
Incompatible materials	Strong oxidising agents.
Storage area	Store in a dry, well-ventilated area at temperature not exceeding 30°C and at relative air humidity of 40-80%. Keep away from heat, sparks and flame. Protect from direct sunlight. Keep away from sources of ignition - No smoking.
Packaging materials	Big Bags made of polyethylene material. Soft specialized containers for loose products. Use a pallet beneath the bags to prevent direct contact with the ground and the water.

7.3. Specific end use(s)

Check the identified uses given in Section 1.2 of the SDS.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational Exposure Limits

Polypropylene (CAS 9003-07-0): not established.

Propene (CAS 115-07-1): GESTIS International Limit Values¹⁾

	LTEL TWA ppm	LTEL TWA mg/m ³	STEL ppm	STEL mg/m ³	Note
Denmark	100	172	200	344	
Finland	500				
Ireland	500				
Latvia		100			
Poland		2000		8600	
Spain	500				
Sweden	500	900			
Switzerland	10000	17500			

Occupational Exposure Limits for the possible products of thermal-oxidative degradation (see section 10):

Acetaldehyde (CAS 75-07-0): GESTIS International Limit Values¹⁾

	LTEL TWA ppm	LTEL TWA mg/m ³	STEL ppm	STEL mg/m ³	Note
Austria	50	90	50	90	
Belgium	25	46			
Denmark	25	45	25	45	
Finland			25(1)	46(1)	(1) 15 minutes average value
France	100	180			
Germany (AGS)	50	91	50 (1) 100 (2)	91(1) 182(2)	(1) 15 minutes average value (2) Ceiling limit value
Germany (DFG)	50	91	50 (1)(2)	91(1)(2)	(1) 15 minutes average value

					(2) A momentary value of 100 ml/m ³ (180mg/m ³) should not be exceeded
Hungary		25		25	
Ireland	25	45	25(1)	45(1)	(1) 15 minutes reference period
Latvia		5			
Poland		5		45(1)	(1) Ceiling limit value
Romania	50	90	100(1)	180(1)	(1) 15 minutes average value
Spain			25	46	
Sweden	25	45	50(1)	90(1)	(1) 15 minutes average value
Switzerland	50	90	50	90	
The Netherlands		37		92	
United Kingdom	20	37	50	92	
Acetic acid (CAS 64-19-7): GESTIS International Limit Values¹⁾					
	LTEL TWA ppm	LTEL TWA mg/m³	STEL ppm	STEL mg/m³	Note
Austria	10	25	20	50	
Belgium	10	25	15	38	
Denmark	10	25	20	50	
European Union	10	25	20(1)	50(1)	Bold-type: Indicative Occupational Exposure Limit Values and Limit Values for Occupational Exposure Binding Occupational Exposure Limit Value - BOELV ~ (1) 15 minutes average value
Finland	5	13	10(1)	25(1)	(1) 15 minutes average value
France			10	25	
Germany (AGS)	10	25	20(1)	50(1)	(1) 15 minutes average value
Germany (DFG)	10	25	20	50	STV 15 minutes average value
Hungary		25		25	
Ireland	10	25	15(1)	37(1)	(1) 15 minutes reference period
Italy	10	25			
Latvia	10	25			
Poland		15		30	
Romania	10	25			
Spain	10	25	15	37	
Sweden	5	13	10(1)	25(1)	(1) 15 minutes average value
Switzerland	10	25	20	50	
Turkey	10	25			
United Kingdom	[10]	[25]	[15]	[37]	The UK Advisory Committee on Toxic Substances has expressed concern that, for the OELs shown in parentheses, health may not be adequately protected because of doubts that the limit was not soundly-based. These OELs were included in the published UK 2002 list and its 2003 supplement, but were omitted from editions published from 2005 onwards.

<i>Formaldehyde (CAS 50-00-0):</i> GESTIS International Limit Values ¹⁾					
	LTEL TWA ppm	LTEL TWA mg/m³	STEL ppm	STEL mg/m³	Note
Austria	0.3	0.37	0.6(1)	0.74(1)	(1) Ceiling limit value
Belgium			0.3	0.38	
Denmark	0.3	0.4	0.3	0.4	
Finland	0.3	0.37	1(1)	1.2(1)	(1) Ceiling limit value
France	0.5		1		
Germany (AGS)	0.3	0.37	0.6(1)	0.74(1)	(1) 15 minutes average value
Germany (DFG)	0.3	0.37	0.6(1)(2)	0.74(1)(2)	(1) 15 minutes average value (2) A momentary value of 1 ml/m ³ (1.2 mg/m ³) should not be exceeded.
Hungary		0.6		0.6	
Ireland	2	2.5	2(1)	2.5(1)	(1) 15 minutes reference period
Latvia		0.5			
Poland		0.5		1	
Romania	1	1.2	2(1)	3(1)	(1) 15 minutes average value
Spain			0.3	0.37	
Sweden	0.3	0.37	0.6(1)	0.74(1)	(1) 15 minutes average value
Switzerland	0.3	0.37	0.6	0.74	
The Netherlands		0.15		0.5	
United Kingdom	2	2.5	2	2.5	
<i>Dust, inhalable:</i> GESTIS International Limit Values ¹⁾					
	LTEL TWA ppm	LTEL TWA mg/m³	STEL ppm	STEL mg/m³	Note
Austria		10		20	
Belgium		10			
Denmark		10		20	
France		10			Bold type: Restrictive statutory limit values
Germany (AGS)		10 (1)(2)(3)		20 (1)(2)(3)	(1) Insoluble particulates (2) not applicable for ultra-fine dusts and dusts with specific toxicity (3) the limit value is a general upper limit for technical measures, as long as no specific regulations for toxic or carcinogenic substances are available
Germany (DFG)		4			Long term exposure level, insoluble particulates
Hungary		10			
Ireland		10			
Spain		10			
Sweden		10			
Switzerland		10			
<i>Dust, respirable:</i> GESTIS International Limit Values ¹⁾					
	LTEL TWA ppm	LTEL TWA mg/m³	STEL ppm	STEL mg/m³	Note
Austria		5		10	STV 15 minutes average value

Belgium		3			
France		5			Bold type: Restrictive statutory limit values
Germany (AGS)		1.25 (1)(2)(3) (4)(5)			(1) Insoluble particulates; (2) not applicable for ultra-fine dusts and dusts with specific toxicity; (3) the limit value is a general upper limit for technical measures, as long as no specific regulations for toxic or carcinogenic substances are available; (4) the limit value was derived for dusts with an average density of 2.5 mg/m ³ ; (5) at work areas where all technical and further measures are state of the art but the LV is still not adhered, the old LV can be applied for a transitional period until 31st December 2018 (8 h-LV: 3.0 mg/m ³ , 15 minutes average value: 6.0 mg/m ³)
Germany (DFG)		1.5			Insoluble particulates
Hungary		6			
Ireland		4			
Spain		3			
Sweden		5			
Switzerland		3			
¹⁾ GESTIS International Limit values: http://limitvalue.ifa.dguv.de/WebForm_ueliste2.aspx					

8.1.2. DNEL/ PNEC values

No information available.

8.2. Exposure controls

8.2.1. Technical safety measures

Appropriate engineering controls:

Provide adequate forced-air and exhaust ventilation in work zones to ensure that the occupational exposure limit is not exceeded. Compulsory monitoring of air conditions in work areas.

Sealing and grounding of equipment and communications. Usage of intrinsically safe equipment

8.2.2. Personal protection equipment

No significant health hazard in normal industrial use conditions.

Wear personal protective equipment during processing of polypropylene. Use of personal protective equipment must be consistent with good occupational hygiene practices.

Hand protection:

Wear approved protective gloves (Nitrile rubber BS EN 374)

If contact with hot product is anticipated, gloves should be heat-resistant and thermally insulated. Wear insulating gloves BS EN407 (heat).

Eye protection:

Wear goggles giving complete protection to eyes (BS EN 166).

Skin and body protection:

Wear approved protective gloves (Nitrile rubber. BS EN 374)

If contact with hot product is anticipated, gloves should be heat-resistant and thermally insulated. Wear insulating gloves BS EN407 (heat).

Wear apron or other protective clothing and antistatic boots.

Respiratory protection:

Not required (if is used workplace conditions).

In emergency or in case of increase of hazardous substances concentration at the workplace wear positive pressure MSHA/NIOSH-approved self-contained breathing apparatus (BS EN 14387:2004).

Environmental exposure controls:

None specific.

Do not allow penetration of the product into water reservoirs, surface and ground water, sewer ducts and soil. Preventing disposal into water reservoirs of contaminated water without treatment.

Monitor content of hazardous substances in the air. Content of dust in the air should be monitored.

Provide sealing of process equipment.

Other information:

Do not eat, drink or smoke while working. Wash hands at the end of each work shift and before eating, drinking, smoking or using the toilet. The usual precautionary measures for handling chemicals should be followed.

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 (product is produced in the form of granules)
Colour	white or colourless, non-transparent
Odour	odourless
Melting / freezing point	160-170 °C
Boiling point	Not applicable
Relative density	900-910 kg/m ³
Vapour pressure	Not applicable
Surface tension	Not applicable
Bulk specific gravity	440 – 520 kg/m ³
Water solubility	Insoluble.
Partition coefficient n-octanol/water (log value)	Not available.
Ignition temperature	325 – 343 °C For dust 325 °C
Flammability (solid, gas)	Does not ignite spontaneously, burn only upon entering into a source of fire.
Upper/low flammability or Explosive limit ranges	Low flammability limit for dust 32.7 g/cm ³ .
Explosive properties	Non explosive. Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge.
Self-ignition temperature	325 – 388 °C For dust 345°C
Oxidising properties	Not available
Viscosity	Not available
Granulometry	2-5 mm
Stability in organic solvents and identity of relevant degradation products	Insufficiently plumps at room temperature in organic solvents (acetone, benzene, toluene). At 100 °C PP dissolves in toluene, benzene.
Dissociation constant	Not available

9.2. Other information	
Flexural modulus, mPa	≥ 1300 (PP H030 GP/3); ≥ 1200 (SIBEX PP H031 BF/3) ≥ 1100 (SIBEX PP H033 FF/3); ≥ 1300 (SIBEX PP H036 BF/3) ≥ 1300 (PP H040 GP/3); ≥ 1300 (SIBEX PP H043 FF/3) ≥ 1300 (SIBEX PP H063 FF/3); ≥ 1300 (PP H120 GP/3) ≥ 1300 (PP H140 GP/3); ≥ 1200 (PP H250 GP/3) ≥ 1100 (SIBEX PP H253 FF/3); ≥ 1200 (SIBEX PP H263 FF/3) ≥ 1400 (SIBEX PP H270 FF/3); ≥ 1300 (SIBEX PP H350 FF/3) ≥ 1300 (SIBEX PP H363 FF/3)
Melt flow index (g/10 min)	2.5 – 3.5 (PP H030 GP/3); 2.8 – 3.3 (SIBEX PP H031 BF/3) 2.9 – 3.6 (SIBEX PP H033 FF/3); 2.8 – 3.2 (SIBEX PP H036 BF/3) 3.5 – 5.0 (PP H040 GP/3); 3.7 - 4.3 (SIBEX PP H043 FF/3) 5.5 - 6.5 (SIBEX PP H063 FF/3); 10.0 - 15.0 (PP H120 GP/3) 11.0 – 16.0 (PP H140 GP/3); 23.0 – 30.0 (PP H250 GP/3) 23.0 – 30.0 (SIBEX PP H253 FF/3); 23.0 – 29.0 (SIBEX PP H263 FF/3) 23.0 – 29.0 (SIBEX PP H270 FF/3); 30.0 – 40.0 (SIBEX PP H350 FF/3) 30.0 – 40.0 (SIBEX PP H363 FF/3)

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Stable under all ordinary circumstances at ambient temperatures, and if released into the environment.

10.2. Chemical stability

Stable under normal recommended conditions.

10.3. Possibility of hazardous reactions

Dust may form explosive mixture with air particularly in enclosed spaces.

10.4. Conditions to avoid

Avoid dust generation which may cause formation of explosive concentration.

Avoid heating of product up to 300 °C. Keep away from heat and sources of ignition.

10.5. Incompatible materials

Strong oxidising agents.

10.6. Hazardous decomposition products

None under normal conditions at ambient temperatures.

Decomposition products can include and not limited to: formaldehyde, carbon oxide, carbon dioxide, acetaldehyde, organic acids (acetic acid), etc.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Routes of Exposure

At ambient temperature the product is a non-volatile solid. There is no potential for inhalation exposure. If the product is handled at elevated temperatures this makes thermal burns the greatest acute hazard.

Acute toxicity

Polypropylene (CAS 9003-07-0)

LD50, oral, rats	>5000 mg/kg bw, FBEPH. BT#000764, 2007
LC50, inhalation, rats	Not classified. No data available.
LD50, dermal, rats	Not classified. No data available.

Skin corrosion/irritation

Not classified.

Additional information

Skin contact with melted/heated product may cause serious thermal burns.

Serious eye damage/irritation	Not classified.
Additional information	Solid or dust may cause irritation or corneal injury due to mechanical action. Dust and/or thermal decomposition products may cause irritation of eye. Eye contact with melted/heated product may cause serious thermal burns.
Respiratory or skin sensitisation	Not classified.
Additional information	Dust and/or thermal decomposition products inhalation may cause irritation of respiratory system. Products of thermal-oxidative degradation under long term inhalation cause generic toxic and highly irritating allergic influence.
Germ cell mutagenicity	Not classified. No data available.
Carcinogenicity	Not classified. No data available.
Toxicity for reproduction	Not classified. No data available.
STOT - single exposure	Not classified. No data available.
STOT - repeated exposure	Not classified. No data available.
Repeated dose toxicity	Not classified. No data available.
Aspiration hazard	Not classified. No data available.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

At normal conditions the product is a very stable. Does not form toxic compounds with other substances in air and water. Pollution of water and soil with polymer flakes may occur only if production, handling and transportation rules are not followed, in case of effluent discharge without treatment, as a result of emergencies and accidents.

Aquatic toxicity:

Not expected to be toxic to aquatic life.

<i>Polypropylene (CAS 9003-07-0)</i>	
Fish (Short-term toxicity)	
LC50 (96h)	No data available.
LC50 (96h)	No data available.
Fish (Long-term toxicity)	
NOEC (31 d)	No data available.
Aquatic invertebrates (Short-term toxicity)	
EC50 (48 h)	No data available.
EC50 (96 h)	No data available.
Aquatic invertebrates (Long-term toxicity)	
NOEC (21 d)	No data available
NOEC (28 d):	No data available
Algae and aquatic plants	
EC50/LC50 (96 h)	No data available
EC10/LC10 or NOEC	No data available
Toxicity to aquatic micro-organisms	
EC10 (18 h)	No data available
12.2. Persistence and degradability	
Abiotic degradation:	No data available

Biodegradation	No specific ecological data are available for this product. This water-insoluble polymeric solid is expected to be inert in the environment. No appreciable biodegradation is expected
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Persistence and degradability	No data available
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12.3. Bioaccumulative potential

Aquatic bioaccumulation:	Effects on nature due to bioaccumulation are not known.
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Secondary poisoning:	No data available
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12.4. Mobility in soil

Biodegradation in soil:	No data available
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12.5. Results of PBT and vPvB assessment

Regarding all available data on biotic and abiotic degradation, bioaccumulation and toxicity it can be stated that the substance does not fulfil the PBT criteria (not PBT) and not the vPvB criteria (not vPvB).

12.6. Other adverse effects

Not available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste disposal recommendations Disposal should be in accordance with local, state and national legislation. Waste water containing polypropylene should be treated. Packaging waste (paper bags) shall be collected and send for recycling. Plastic waste shall be removed to disposal.

European List of Waste (LoW) code European Waste Code (2001/118/EC):
07 02 13 – waste plastic
20 01 39 – plastic

SECTION 14. TRANSPORT INFORMATION

General

The product is not covered by international regulations on the transport of dangerous goods.

Polypropylene is transported by all modes of transport in covered vehicles in accordance with all rules of transportation for the transport mode.

UN: none.

14.1. Land transport (ADR/RID)

Not regulated

14.2. Inland waterway transport (ADN)

Not regulated

14.3. Sea transport (IMDG)

Not regulated

14.4. Air transport (IATA/ICAO)

Not regulated

14.5. Special precautions for user

Always transport in closed containers. Ensure that persons transporting the product know what to do in the event of an accident or spillage. For information regarding Exposure Controls/Personal Protection see Section 8 of the SDS

14.6. Transport in bulk according to Annex II of Marpol and the IBC Code

Not regulated

SECTION 15. REGULATORY INFORMATION

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

15.1.1. EU-Regulations

Authorisations and/or restrictions on use (Annex XVII): Not applicable.

Polypropylene (CAS 9003-07-0) is not on the REACH Candidate List.

Polypropylene (CAS 9003-07-0) is not on the REACH Annex XIV List.

Other information, restriction and prohibition regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer. Annex II - Not listed.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances- (SEVESO III): Not listed.

Directive 2013/39/EU priority substances in the field of water policy (amending Directive 2006/60/EC – Water Framework Directive and Directive 2008/105/EC on environmental quality standards in the field of water policy): Not listed.

Regulation (EC) No 850/2004 on persistent organic pollutants: Annex III – Not listed.

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals: Not listed.

Commission Regulation (EU) No.10/2011 Plastics in contact with food: Listed. Annex1. Use as additive or polymer production aid: yes. Use as monomer or other starting substance or macromolecule obtained from microbial fermentation: no. FRF applicable: no. SML=60 mg/kg.

15.1.2. Globally Harmonized System of Classification and Labelling of Chemicals (UN-GHS)

Classification according to UN-GHS:

Labelling according to UN-GHS:

Hazard pictogram(s) Not applicable.
 Signal word(s) Not applicable.
 Hazard Statement(s): Not applicable.
 Precautionary statement(s) Not applicable.

15.1.3. National regulations

Germany BfR – Recommendations on VII. Polypropylene.

Food Contact Materials:

Switzerland Packaging Inks Annex 10 Listed. Part A: evaluated substances. List IV. SML = 60 mg/kg.

15.2. Chemical safety assessment

Chemical Safety Report has been performed for *Polypropylene* (CAS 9003-07-0).

SECTION 16. OTHER INFORMATION

16.1. Indication of changes

Version	Date of change	Section	Description of changes
1.0	25/04/2017	All	Initial SDS.
1.1	29/06/2017	Title; 1; 9	Grade SIBEX PP H063 FF/3 was added.
2.0	08/05/2019	All	Complete review of the SDS
2.1	06/09/2019	Title; 1; 9	Grade SIBEX PP H363 FF/3 was added.

16.2. Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS	The German Committee on Hazardous Substances (Ausschuss für Gefahrstoffe – AGS)

DFG	Germany Research Foundation
DNEL	Derived No Effect Level
IMDG	International Maritime Dangerous Goods
ICAO-TI	Technical Instructions for the Safe Transport of Dangerous Goods by Air
EC50	Half maximal effective concentration
LC50	Lethal Concentration to 50 % of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LTEL	Long Term Exposure Limit
NIOSH	National Institute for Occupational Safety and Health (<i>USA CDC</i>)
NOEC	No Observed Effect Concentration
OECD	Organization for Economic Co-operation and Development
PNEC	Predicted No Effect Concentration
PBT	Persistent, bioaccumulative, toxic chemical
vPvB	Very Persistent, Very Bioaccumulative
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL	Short Term Exposure Limit
STOT	Specific Target Organ Toxicity
(STOT) RE	Repeated Exposure
(STOT) SE	Single Exposure
TWA	Time Weighted Average
UN	United Nations
SML	Specific migration limit
BfR	Federal Institute for Risk Assessment (<i>Germany</i>)

16.3. Full text of H- and EUH-statements:

Not applicable.

16.4. Key literature references and sources

DOCUMENTS, PROVIDED BY CONSORTIUM:

CHEMICAL SAFETY REPORT FOR *Propene* (CAS 115-07-1; EC 204-062-1).

EU DIRECTIVES

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Regulations. Commission regulation (EU) no 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

COMMISSION DECISION of 16 January 2001 amending Decision 2000/532/EC as regards the list of wastes (notified under document number (2001/118/EC).

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations. The Control of Substances Hazardous to Health Regulations 1988. Health and Safety at Work Act 1974.

ENVIRONMENTAL LISTING

Control of Pollution Act 1974.

STATUTORY INSTRUMENTS

Notification of New Substances Regulations (NONS) 1993. The Export and Import of Dangerous Chemicals Regulations 2005 number 928.

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply (EU 2001/59/EC). Safety Data Sheets for Substances and Preparations (REACH).

GUIDANCE NOTES

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37.

CHIP for everyone HSG(108).

16.5. Other Information

This product is a polymer and is not classified as dangerous under criteria Regulation (EC) No 1272/2008 (Regulation CLP). This polymer does not contain substances classified as dangerous under Article 59.2 Regulation (EC) No 1272/2008, namely:

- in an individual concentration of ≥ 1 % by weight for non-gaseous mixtures posing human health or environmental; or
- in an individual concentration of ≥ 0.1 % by weight for non-gaseous mixtures that is carcinogenic category 2 or toxic to reproduction category 1A, 1B and 2, skin sensitiser category 1, respiratory sensitiser category 1, or has effects on or via lactation or is persistent, bioaccumulative and toxic (PBT) in accordance with the criteria set out in Annex XIII or very persistent and very bioaccumulative (vPvB) in accordance with the criteria set out in Annex XIII; or
- a substance for which there are Community workplace exposure limits.

In accordance with mentioned above, this product does not require an official SDS as per Regulations (EC) No 1907/2006 (articles 31.1; 31.2) and Commission Regulation (EU) No 453/2010.

This SDS is developed in good faith to provide a customer with sufficient information allowing taking necessary measures to comply with relevant HSE requirements.

Training advice

Personnel handling the product has to be acquainted demonstrably with its hazardous properties, with health and environmental protection principles related to the product and first aid principles.

DISCLAIMER

This information is based on our current level of knowledge. This information may be subject to revision as new knowledge and experience becomes available, and SIBUR makes no warranties and assumes no liability in connection with any use of this information. Since SIBUR cannot be aware of all aspects of your business and the impact the REACH Regulation has for your company, SIBUR strongly encourages you to get familiar with the REACH Regulation in order to comply with its requirements and timelines.

END OF SAFETY DATA SHEET