

	SAFETY DATA SHEET	-Version: Rev.05 -Date Updated: 2022.10.11
	IMPACT COPOLYMER POLYPROPYLENE	

In accordance with Regulation (EU) 2015/830 (REACH), Annex II (based on the United Nations' Globally Harmonised System (GHS))

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

- Product name: Impact Copolymer Polypropylene
- Grade name: ML100

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

- Relevant identified uses: Materials of general purpose plastic etc.
- Uses advised against: Use for recommended use only

1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier: S-OIL Corporation
- Street address/P.O. Box: S-OIL Bldg., 192, Baekbeom-ro , Mapo-gu, Seoul, 04196, Korea (Seoul Mapo P.O. Box 87)
- Country ID/Postcode/Place: 04196
- Department: Application Development/Technical Service Team
- Telephone number: +82-(0)2-527-6073 (Fax: +82-(0)2-527-6094)
- e-mail address of competent person responsible for the SDS: hamws@s-oil.com

1.4 Emergency telephone number

Countries	Tel. No.	Languages	Opening hours
China	+86-21-6278-3630	Chinese, English	9:00am – 6:00pm (GMT+8)
Europe	+31-20-333-8400	English	9:00am – 6:00pm (GMT+1)
South East Asia	+65-6336-0030	English	9:00am – 6:00pm (GMT+8)
North East Asia (except China)	+82-2-527-6073	English	9:00am – 6:00pm (GMT+9)
Et Cetera	+82-2-527-6073	English	9:00am – 6:00pm (GMT+9)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

- **Classification according to Regulation (EC) No. 1272/2008 [CLP]**
 - Not classified
- **Additional information**
 - Not available

2.2 Label elements

- **Hazard pictograms**
 - Not applicable
- **Signal word**
 - Not applicable
- **Hazard statement**
 - Not applicable
- **Precautionary statements**
 - Not applicable
- **Supplemental Hazard information (EU)**
 - Not applicable

2.3 Other hazards

- No information available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Mixtures**

Name	CAS No.	REACH Registration No.	% [weight]	Classification according to Regulation(EC) No 1272/2008(CLP)
1-Propene, polymer with ethene	9010-79-1	Not applicable	>99	Not classified
Additive	Trade secret	Not available	<1	Not available

SECTION 4: FIRST-AID MEASURES**4.1 Description of first aid measures**

- **General notes**
 - Not available
- **Following inhalation**
 - Specific medical treatment is urgent.
 - Move victim to fresh air.
 - Give artificial respiration if victim is not breathing.
 - Administer oxygen if breathing is difficult.
- **Following skin contact**
 - In case of contact with substance, immediately flush skin with running water at least 20 minutes.
 - Remove and isolate contaminated clothing and shoes.
 - Wash contaminated clothing and shoes before reuse.
 - Get immediate medical advice/attention.
- **Following eye contact**
 - In case of contact with substance, immediately flush eyes with running water at least 20 minutes.
- **Following ingestion**
 - Do not let him/her eat anything, if unconscious.
 - Get immediate medical advice/attention.
- **Self-protection of the first aider**
 - First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

- **Acute effects**
 - Not available
- **Delayed effects**
 - Not available

4.3 Indication of immediate medical attention and special treatment needed

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SECTION 5: FIRE-FIGHTING MEASURES**5.1 Extinguishing media**

- **Suitable extinguishing media**
 - Dry sand, dry chemical, alcohol-resistant foam, water spray, regular foam, CO2
- **Unsuitable extinguishing media**
 - High pressure water streams

5.2 Special hazards arising from the substance or mixture

- May be ignited by heat, sparks or flames.
- Containers may explode when heated.
- Some of these materials may burn, but none ignite readily.
- Fire will produce irritating and/or toxic gases.
- If inhaled, may be harmful.

5.3 Advice for firefighters

- Dike fire-control water for later disposal; do not scatter the material.
- Move containers from fire area if you can do it without risk.

- Fire involving Tanks; Cool containers with flooding quantities of water until well after fire is out.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

1) For non-emergency personnel

- **Protective equipment**
 - Use personal protective equipment, see Section 8
- **Emergency procedures**
 - Isolate the hazard area and keep from entering the area.
 - Stay at windward and avoid the low area.

2) For emergency responders

- Isolate the hazard area and keep from entering the area.
- Stay at windward and avoid the low area.

6.2 Environmental precautions

- Air: Ventilate in appropriate way.
- Soil: Secure the receiving area such as ponds, pools and pits.
- Water: Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

1) For containment

- Small Spill; Flush area with flooding quantities of water. And take up with sand or other non-combustible absorbent material and place into containers for later disposal.
- Large Spill; Dike far ahead of liquid spill for later disposal.
- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

2) For cleaning up

- Small Spill; Flush area with flooding quantities of water. And take up with sand or other non-combustible absorbent material and place into containers for later disposal.
- Large Spill; Dike far ahead of liquid spill for later disposal.
- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

3) Other information

- Not available

6.4 Reference to other sections

- See also sections 8 and 13 of the Safety Data Sheet.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

- **Protective measures**
 - Please note that materials and conditions to avoid.
 - Wash thoroughly after handling.
 - Please work with reference to engineering controls and personal protective equipment.
- **Measures to prevent fire**
 - Be careful to high temperature.
- **Measures to prevent aerosol and dust generation**
 - Not available
- **Measures to protect the environment**
 - Not available
- **Advice on general occupational hygiene**
 - Not available

7.2 Conditions for safe storage, including any incompatibilities

- **Technical measures and storage conditions**
 - Not available
- **Packaging materials**
 - Not available
- **Requirements for storage rooms and vessels**

- Store in a closed container.
- Store in cool and dry place.
- **Further information on storage conditions**

- Not available

7.3 Specific end use(s)

- **Recommendations**
- Not available
- **Industrial sector specific solutions**
- Not available

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

- **Occupational Exposure limits**

Name	Korea regulation	ACGIH regulation	Biological exposure index	OSHA regulation	NIOSH regulation	EU regulation
1-Propene, polymer with ethene	Not applicable	Not applicable	Not available	Not applicable	Not applicable	Not applicable

- **Occupational exposure controls**

DNELs								
Route of exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	-	-	-	-	-	-	-	-
Inhalation	-	-	-	-	-	-	-	-
Dermal	-	-	-	-	-	-	-	-
PNECs								
Environmental protection target					-			
Fresh water					-			
Freshwater sediments					-			
Marine water					-			
Marine sediments					-			
Food chain					-			
Microorganisms in sewage treatment					-			
Soil (agricultural)					-			
Air					-			

8.2 Exposure controls

1) Appropriate engineering controls

- **Substance/mixture related measures to prevent exposure during identified uses**
- No specific measures
- **Structural measures to prevent exposure**
- No specific measures
- **Organizational measures to prevent exposure**
- No specific measures
- **Technical measures to prevent exposure**
- Check the legal suitability of exposure level.
- Provide local exhaust ventilation system or other engineering controls to keep the proper velocity control of local exhaust.

2) Individual protection measures, such as personal protective equipment

- **Eye and face protection**
- Wear protective glasses or goggles protecting from splashes or toxic liquids.
- An eye wash unit and safety shower station should be available nearby work place.
- **Skin protection**
- Hand protection: Wear chemical-protective gloves to avoid direct chemical contact.
- Other skin protection: Wear chemical-protective clothing to prevent the skin exposure.

- **Respiratory protection**
 - Wear NIOSH or European Standard EN 149 approved respiratory protective equipment.
- **Thermal hazards**
 - Not available
- 3) **Environmental exposure controls**
 - **Substance/mixture related measures to prevent exposure**
 - Ensure not to cause environmental pollution by discharging into rivers or other waterways.
 - **Instruction measures to prevent exposure**
 - Not available
 - **Organisational measures to prevent exposure**
 - Not available
 - **Technical measures to prevent exposure**
 - Not available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- **Appearance**
 - Description: Solid
 - Color: Colorless (Translucent)
- **Odor**: Odorless
- **Odor threshold**: Not available
- **pH**: Not available
- **Melting point/freezing point**: 140-170 °C
- **Initial boiling point and boiling range**: Not available
- **Flash point**: Not available
- **Evaporation rate**: Not available
- **Flammability (solid, gas)**: Not applicable
- **Upper/lower flammability or explosive limits**: Not available
- **Vapor pressure**: Not available
- **Solubility (ies)**: Not available
- **Vapor density**: Not available
- **Relative density**: 0.90-0.92
- **Partition coefficient: n-octanol/water**: Not available
- **Auto ignition temperature**: 375-400 °C
- **Decomposition temperature**: Not available
- **Viscosity**: Not available
- **Explosive properties**: Not available
- **Oxidizing properties**: Not available
- **Molecular weight**: >1,000

9.2 Other information

- Not available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

- Some of these materials may burn, but none ignite readily.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Containers may explode when heated.
- Fire may produce irritating and/or toxic gases.
- Some liquids produce vapors that may cause dizziness or suffocation.
- Inhalation of material may be harmful.

10.4 Conditions to avoid

- Heat, spark, flame, etc. Ignition source

10.5 Incompatible materials

- Oxidizing agents, combustible materials

10.6 Hazardous decomposition products

- Carbon oxides, Aldehydes

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

(a) Acute toxicity;	
Oral	- LD ₅₀ > 8,000 mg/kg Rat
Dermal	No relevant human information is available.
Inhalation	No relevant human information is available.
(b) Skin Corrosion/ Irritation;	No relevant human information is available.
(c) Serious Eye Damage/ Irritation;	No relevant human information is available.
(d) Respiratory sensitization;	No relevant human information is available.
(e) Skin Sensitization;	No relevant human information is available.
(f) Carcinogenicity;	- Not classified - ACGIH, NTP, OSHA, EC Directive 1272/2008, US EPA: Not listed - IARC Organic polymeric materials: Group 3
(g) Mutagenicity;	No relevant human information is available.
(h) Reproductive toxicity;	No relevant human information is available.
(i) Specific target organ toxicity (single exposure);	No relevant human information is available.
(j) Specific target organ toxicity (repeat exposure);	No relevant human information is available.
(k) Aspiration Hazard;	No relevant human information is available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	
Acute toxicity	- Fish : Not available - Invertebrates : Not available - Algae : Not available
Chronic toxicity	Not available
12.2 Persistence and Degradability	- Persistence : Not available - Degradability : Not available
12.3 Bioaccumulative potential	- Bioaccumulation : Not available - Biodegradation : Not available
12.4 Mobility in soil	Not available
12.5 Results of PBT and vPvB assessment	Not available
12.6 Other adverse effects	Not available
12.7 Hazardous to the ozone layer	Not available

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

- **Product/Packaging disposal**

- Waste and container must be disposed of in accordance with federal, state and local environmental control regulations.
- Waste codes / Waste designation according to LoW(2015): 17 02 03 (Plastic)

- **Waste treatment-relevant information**

- Consider the required attentions in accordance with waste treatment management regulation.

- **Sewage disposal-relevant information**

- Not available

- **Other disposal recommendations**

- Not available

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number: Not applicable

14.2 UN Proper shipping name: Not applicable

14.3 Transport Hazard class: Not applicable

14.4 Packing group: Not applicable

14.5 Environmental hazards: Not applicable

14.6 Special precautions for user

- in case of fire: Not applicable
- in case of leakage: Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not Available

SECTION 15: REGULATORY INFORMATION

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

- **EU regulations**

- Authorisations and/or restrictions on use: Not regulated
- Authorisations: Not regulated
- Restrictions on use: Not regulated

- **Foreign Regulatory Information**

- U.S.A management information (OSHA Regulation): Not regulated
- U.S.A management information (CERCLA Regulation): Not regulated
- U.S.A management information (EPCRA 302 Regulation): Not regulated
- U.S.A management information (EPCRA 304 Regulation): Not regulated
- U.S.A management information (EPCRA 313 Regulation): Not regulated
- Korea management information: Not regulated
- Substance of Roterdame Protocol: Not regulated
- Substance of Stockholme Protocol: Not regulated
- Substance of Montreal Protocol: Not regulated

15.2 Chemical safety assessment

- No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

This Safety Data Sheet prepared in accordance with Regulation (EU) 2015/830 (REACH), Annex II

16.1 Indication of changes

- Date Updated: 11 October 2022
- Version: Rev. 05

16.2 Abbreviations and acronyms

- ACGIH = American Conference of Government Industrial Hygienists
- CLP = Classification Labelling Packaging Regulation ; Regulation (EC) No 1278/2008
- CAS No. = Chemical Abstracts Service number
- DMEL = Derived Minimal Effect Levels
- DNEL = Derived No Effect Level
- EC Number = EINECS and ELINCS Number (see also EINECS and ELINCS)
- EU = European Union
- IARC = International Agency for Research on Cancer
- ISHL = Industrial Safety & Health Law
- NIOSH = National Institute for Occupational Safety & Health
- NTP = National Toxicology Program
- OSHA = European Agency for Safety and Health at work
- PBT = Persistent, Bioaccumulative and Toxic substance
- PNEC(s) = Predicted No Effect Concentration(s)
- REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 2015/830
- STP = Sewage Treatment Plant
- SVHC = Substances of Very High Concern
- vPvB = Very Persistent and Very Bioaccumulative
- UN = United Nations
- MARPOL = International Convention for the Prevention of Pollution from Ships (IMO)

- IBC = Intermediate Bulk Container
- CERCLA = Comprehensive Environmental Response, Compensation & Liability Act (US)
- EPCRA = Emergency Planning and Community Right-to-Know Act (US)
- EINECS = European Inventory of Existing Commercial chemical Substances
- ELINCS = European List of Notified Chemical Substances

16.3 Key literature reference and sources for data

- U.S. National library of Medicine (NLM) Hazardous Substances Data Bank (HSDB)
- LookChem; <http://www.lookchem.com/>
- IUCLID: <http://ecb.jrc.ec.europa.eu/IUCLID-DataSheets/7631905.pdf>
- CHRIP(CheMical Risk Information Platform)
- EPISUITE v4.11; <http://www.epa.gov/opt/exposure/pubs/episuitedl.html>
- The Chemical Database -The Department of Chemistry at the University of Akron; <http://ull.chemistry.uakron.edu/erd/>
- ECOTOX: <http://cfpub.epa.gov/ecotox/>
- International Chemical Safety Cards (ICSC): <http://www.nihs.go.jp/ICSC/>
- National Chemical Information System (<http://ncis.nier.go.kr>)
- Korea Dangerous Material Inventory Management System (<http://hazmat.nema.go.kr>)
- REACH information on registered substances; <https://echa.europa.eu/information-on-chemicals/registered-substances>
- EU CLP; <https://echa.europa.eu/information-on-chemicals/cl-inventory-database>
- NIOSH Pocket Guide; <http://www.cdc.gov/niosh/npg/npgdcas.html>
- IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; <http://monographs.iarc.fr>
- National Toxicology Program; <http://ntp.niehs.nih.gov/results/dbsearch/>
- TOMES-LOLI@; <http://www.rightanswerknowledge.com/loginRA.asp>
- UN Recommendations on the transport of dangerous goods 17th American Conference of Governmental Industrial Hygienists TLVs and BEIs

16.4 Classification and procedure used to derive the classification for mixtures according to Regulation(EC) 1272/2008(CLP): Not classified

16.5 Relevant R-phrases and/or H-statements (number and full text): Not applicable

16.6 Training advice

- Do not handle until all safety precautions have been read and understood.

16.7 Further information

- This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation, as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.