Date updated: 2017. 03. 30.

SAFETY DATA SHEET

Section 1. Identification of the substance / mixture and of the company/undertaking

1.1 Product identifier	SKYPEL LX780A SKYPEL Polyester Elastomer "SKYPEL" is a registered trademark of SK chemicals
1.2 Relevant identified uses of the substance or mixture and uses advised against	
1) Relevant identified uses	SKYPEL LX780A is suitable for general compounding and producing special products such as automotive parts, cable jackets, hoses, tubes, films, and sheets.
2) Used advised against	Use for recommended use only
1.3 Details of the supplier of the safety data sheet	
1) Manufacturer/supplier	SK Chemicals co., ltd 686 Sampyeong dong, Bundang-gu, Seongnam-si, Gyeonggi-do 463-400, Korea
2) Telephone number (fax)	+82-2-2008-2259
3) E-mail address of competent person responsible for the SDS	nicejuni81@sk.com
1.4 Emergency telephone number	+82-2-2008-2008

Section 2. Hazards identification

2.1 Classification of the substance or mixture	1,4-Benzenedicarboxylic acid, 1,4-dimethyl ester, polymer with alpha-hydro-omega-hydroxypoly(oxy-1,4-butanediyl) and 1,3-propanediol, block is not classified according to Regulation (EC) 1272/2008 and Directive 67/548/EEC.
2.2 Label elements	Not applicable
2.3. Other hazards	Not applicable
2.4. Notes	LX780A is not hazardous material. The risks of this material might be related to injection or extrusion processing. Inhalation of the spray mist of degraded products may cause severe irritation of respiratory tract, characterized by coughing, choking or shortness of breath. Spray mist of degraded products may cause damage on tissue particularly such as mucous membranes of eyes, mouth and respiratory tract.

Section 3. Composition/information on ingredients

Chemical name	CAS no (EC no)	Registration No of monomers	Concentration
1,4-Benzenedicarboxylic acid, 1,4-dimethyl ester, polymer with alpha-hydro-omega-hydroxypoly(oxy-1,4-butanediyl) and 1,3-propanediol, block	154380-06-0	DMT : 01-2119472299-26-**** 1,3 PDO : 01-2119489383-28-**** PTMG (polymer) : Not required	≥ 99%

Section 4. First aid measures

4.1 Description of first aid measures

4.1.1 Inhalation — Not available

4.1.2 Eye contact
- Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15minutes.
- Get medical attention if eye symptoms occurred.
- In case of contact with molten substance, immediately flush eyes with water for at least 15 minutes. Get medical attention immediately.

4.1.3 Skin contact
- Remove contaminated clothing and shoes.
- Get medical attention if skin symptoms occurred.
- If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.
- Wash contaminated clothing and shoes before reuse.

4.1.4 Ingestion
- No specific intervention is indicated as the compound is not likely to be hazardous by ingestion. Consult a physician if necessary.

4.2 Most information symptoms and affects, both acute and delay

Not available

4.3 Indication of any immediate medical attention and special treatment needed
- Call emergency medical service. Get medical advice/attention if you needed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- If burned by contact with molten material, cool quickly as possible with water, and then go to see a physician for treatment of burn.

Section 5. Firefighting measures	
5.1 Extinguishing media	
5.1.1 Suitable extinguishing	CO2, water, sand, Foam, Dry Chemical
5.1.2 Unsuitable extinguishing media	Not available
5.2 Special hazard arising from the substance or mixture	
5.2.1 Thermal decomposition products	Not available
5.2.2 Hazardous combustion products	CO2, CO, Acrolein, Tetrahydrofuran, Acetaldehyde
5.2.3 Unusual fire and explosion hazards	Combustible
5.2.4 Hazardous gases / vapors produced in fire	carbon monoxide
5.3 Advice for firefighters	- Wear positive pressure self-contained breathing apparatus (SCBA). - Structural fire fighters' protective clothing will only provide limited protection

Section 6. Accidental release measures	
6.1 Personal precautions, protective equipment and emergency procedures	- Stop leak if you can do it without risk. - Isolate exposed area. - Keep unauthorized personnel away. - Use certificated protective equipment. - Ventilate the leaked area. - Pellets on floor may be slippery and cause falls
6.2 Environmental precautions	- Spilled pellets may cause soil and air pollution. - Disposal should be carried in compliance with federal, state and local regulations regarding health, air and water pollution
6.3 Methods and material for containment and cleaning up	- Recover large spills for disposal. - Carefully sweep up small spills and transfer to suitable container for disposal. - Avoid creation of dusty atmosphere. - Do not touch or walk through spilled material. - Prevent entry into waterways, sewers, basements or confined areas.
6.4 Reference to other sections	

Section 7. Handling and storage	
7.1 Precautions for safety handling	- Avoid contact with molten material. - Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures.
7.2 Conditions for safe storage, including any incompatibilities	- Keep container closed. - Do not expose to temperature exceeding 40℃ for a prolonged time. - Protect from direct sunlight and all heat sources in order to avoid sintering. - Store container in a well dry/cool place. - Keep away from waterways and sewers. - Keep away from any source of ignition.
7.3 Specific and uses	- Avoid contamination of foods. - Avoid inhalation of dust during the processing of the resin

Section 8. Exposure controls / Personal protection		
8.1 Control parameters		
- Regulation in Korean	Not applicable	
- US (NIOSH/OSHA AGGIH)	Not applicable	
NIOSH- TWA	Not applicable	
OHSA- TWA	Not applicable	
ACGIH- TWA	Not applicable	
- EU Regulation	Not applicable	
- Biological Exposure Index	Not applicable	
8.2 Exposure controls		
- Engineering control	- Provide local exhaust ventilation system or other engineering controls to keep the airborne below their respective threshold limit value. - Check legal suitability of exposure level.	
- Individual protection measure		
Respiratory protection	- Wear NIOSH or European Standard EN 149 approved full or half face piece (with goggles) respiratory protective equipment when necessary.	
Eye/face protection	- An eye wash unit and safety shower station should be available nearby work place. - Wear safety glasses to protect eyes from scattering toxic	

	substance.
Skin protection	- It is a good industrial hygiene practice to minimize skin contact. When material is heated, wear gloves to protect against thermal burns.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Appearance	Off-white to light yellow solid (pellets)
(b) Odour	Odorless
(c) Odour threshold	Not applicable
(d) pH	Not applicable
(e) Melting point/freezing point	192℃
(f) Initial boiling point and boiling range	Not applicable
(g) Flash point	384℃ (ASTM D1929)
(h) Evaporation rate	Not available
(i) Flammability (Solid, gas)	Not available
(j) Upper/lower flammability or explosive limits	Not available
(k) Vapour pressure	Negligible (20 ℃)
(l) Vapour density	Not available
(m) Relative density	> 1
(n) Solubility in water	Negligible
(o) Partition coefficient: n-octanol/water	Not available
(p) Auto-ignition temperature	Not available
(q) Decomposition temperature	Not available
(r) Viscosity	Not available
(s) Explosive properties	Not available
(t) Oxidizing properties	Not available

9.2 Other information	Not available

Section 10. Stability and reactivity

10.1 Reactivity	Not available

10.2 Chemical stability	Not available
10.3 Possibility of hazardous reaction	Not available
10.4 Conditions to avoid	- Avoid contact with incompatible materials. - Avoid release to the environment.
10.5 Incompatible materials	Not available
10.6 Hazardous decomposition products	Not available

Section 11. Toxicological information

11.1 Information on toxicological information	
(a) acute toxicity	LD50 Oral, rat : More than 5,000mg/kg
(b) skin corrosion/irritation	Molten material will produce thermal burns
(c) serious eye damage/irritation	Molten material will produce thermal burns
(d) respiratory or skin sensitization	Not available
(e) germ cell mutagenicity	Not available
(f) carcinogenicity	IARC, NTP, OSHA, ACGIH, EU Regulation 1272/2008, US EPA: not listed
(g) reproductive toxicity	Not available
(h) STOT-single exposure	Not available
(i) STOT-repeated exposure	Not available
(j) aspiration hazard	Not available

Section 12. Ecological information

12.1 Toxicity	Not available
12.2 Persistence and degradability	Not available
12.3 Bio accumulative potential	No bio concentration is expected because of high molecular weight (MW > 10,000).
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 Additional information	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods	Waste must be disposed of in accordance with federal, state and local environmental control regulations

Section 14. Transport information	
14.1 UN Number	Not regulated as a hazardous material in transportation by DOT/IMO/IATA
14.2 UN proper shipping name	SKYPEL LX780A Chemicals, N.O.S. (Not-regulated)
14.3 Transport hazard class	Not applicable
14.4 Packing group	Not applicable
14.5 Environmental hazards	Not applicable
14.6 Special precautious for user	Not applicable
14.7 Transport in bulk according to Annex II of MARPOL and the IBC code	Not applicable

Section 15. Regulatory information	
15.1 Safety, health and environment regulation /legislation specific for the substance or mixture	This product is not classified and labelled as dangerous according to EC directives. EU (EINECS/ELINCS/NLPL): SKYPEL Copolyester is not classified as a hazardous substance under EU regulations. The polymer is exempted from listing on EINECS. TSCA (US Toxic Substances Control Act): All components of SKYPEL Copolyester are listed on the TSCA inventory. Any impurities present in this product are exempt from listing. The polymer is exempted from listing on TSCA.
15.2 Chemical safety assessment	Not classified

Section 16. Other information	
Product safety data sheet for 1,4-Benzenedicarboxylic acid, 1,4-dimethyl ester, polymer with alpha-hydro-omega-hydroxypoly(oxy-1,4-butanediyl) and 1,3-propanediol, block prepared in accordance with Annex II of the REACH Regulation EC 1907/2006, Regulation (EC) 1272/2008.	
- Version	1.1/EN
- Revision date	20 March 2017

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1272/2008; article 31 and Annex Ⅱ), 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.