Hanwha TotolEnergies	Material Safety Data Sheet	Issue date	2011.09.23
	(MSDS)	Revision date	2022.04.01
	Hanwha TotalEnergies Petrochemical BCPP	Revision No.	REV.6
		Print date	2022.04.01

1. IDENTIFICATION

- A. Product name
 - Product name: Hanwha TotalEnergies Petrochemical BCPP BJ7500

B. Recommended Use and Restriction on Use

- \bigcirc General Use: Plastic articles or goods
- \bigcirc Restriction in use: Not available

C. Manufacturer/Distributor Information

- Manufacturer Information

Company	Hanwha Tot	Hanwha TotalEnergies Petrochemical Co., Ltd.				
Address	103, Dok	103, Dokgot 2-ro, Daesan-Up, Seosan-Si,				
	Chungnam, Korea 31900					
Phone	82-41-660-	6190 FAX		82-41-660-6189		

2. HAZARDS IDENTIFICATION

A. GHS Classification 1) Physical Hazards : Not classified **TotalEnergies** 2) Health Hazards : Not classified 3) Environmental Hazards : Not classified B.GHS label elements 1) Hazard symbols : Not applicable 2) Signal Word : Not applicable 3) Hazard Statements Not applicable 4) Precautionary Statements ■ Prevention : Not applicable ■ Response : Not applicable ■ Storage : Not applicable ■ Disposal : Not applicable C. Other hazards which do not result in classification - Not available

	Material Safety Data Sheet	Issue date	2011.09.23		
	(MSDS)	Revision date 2022.04			
Hanwha TotalEnergies	Hanwha TotalEnergies Petrochemical	Revision No.	REV.6		
	BCPP	Print date	2022.04.01		
3. COMPOSION/II	NFORMATION ON INGREDIENTS				
Chemical name	Trade names and Synonyms CA	S No Cont	ents (%)		
ETHYLENEPROPYLEN	E 1-PROPENE, POLYMER				

Additive* Not applicable Not applicable < 1				
	Additive*	Not applicable	Not applicable	< 1

WITH ETHENE

* In additive components, there are no 1% or more hazardous substance subject to management, no 0.1% or more carcinogens and germ cell mutagenic substance, no 0.2% or more respiratory sensitizing substance(gas), and no 0.3% or more reproductive toxic substance.

4. FIRST-AID MEASURES

A. Eye Contact

COPOLYMER

- Do n<mark>o</mark>t rub your eyes.

- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.

TotalEnergies

 ≥ 99

9010-79-1

B. Skin Contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

- Wash contaminated clothing thoroughly before re-using.

- C. Inhalation
 - When exposed to large amounts of steam and mist, move to fresh air.
 - Take specific treatment if needed.

D. Ingestion

- Please be advised by doctor whether induction of vomit is demanded or not.

- Rinse your mouth with water immediately.

	Material Safety Data Sheet	Issue date	2011.09.23			
📿 Hanwha 🔫	(MSDS)	Revision date	2022.04.01			
TotalEnergies	Hanwha TotalEnergies Petrochemical	Revision No.	REV.6			
	BCPP	Print date	2022.04.01			
long term e - Not avail F.Notes to phy	 E. Delayed and immediate effects and also chronic effects from short and long term exposure Not available F. Notes to physician Notify medical personnel of contaminated situations and have them 					
5. FIRE FIGHTING	G MEASURE					
 5. FIRE FIGHTING MEASURE A. Suitable (Unsuitable) extinguishing media 1) Suitable extinguishing media -Use mist, fine water spray, chemical desiccant, carbon dioxide, foam. 2) Unsuitable extinguishing media : Do not use water in a jet. 3) Unusual fire(big fire) : Not available B. Specific hazards arising from the chemical Pyrolysis or combustion may produce irritating gases and carbon oxides. C. Special protective actions for firefighters Cool containers with water until well after fire is out. Keep unauthorized personnel out. Notify your local fire station and inform the location of the fire and characteristics hazard. In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn. Avoid inhalation of materials or combustion by-products. Keep containers cool with water spray. 						
	RELEASE MEASURES	gency proce	lures			
n.rersonar pre	equipment and emer	Serie, brocce				

Hanwha TotolEnergies	Material Safety Data Sheet	Issue date	2011.09.23
	(MSDS)	Revision date	2022.04.01
	Hanwha TotalEnergies Petrochemical BCPP	Revision No.	REV.6
		Print date	2022.04.01

- Remove all flammable sources
- If it is not dangerous, stop leaking.
- Take caution of substances and conditions that should be avoided.
- Ventilate properly.
- DO NOT touch the effluents or walk around the area.
- Prevent producing dust.

B. Environmental precautions

- -Prevent runoff and contact with waterways, drains or sewers.
- If large amounts have been spilled, inform the relevant authorities.

C. Methods and materials for containment and cleaning up

- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.

- Notify the central and local government if the emission reach the standard threshold.

- Disp<mark>o</mark>sal of waste shall be in compliance with the Wa<mark>st</mark>es Control Act
- Appropriate container for disposal of spilled material collected.

- Small leak: sand or other non-combustible material, please let use absorption.

- Wipe off the solvent.
- Dike for later disposal.
- Prevent the influx to waterways, sewers, basements or confined spaces.

- Spilled material should be treated as a potential risk of waste collected.

7. HANDLING AND STORAGE

- A. Precautions for safe handling
 - Wash thoroughly after use.
 - Take caution against high temperature.
 - Refer Engineering Maintenance and Personal Protective Gears at work.

	Material Safety Data Sheet	Issue date	2011.09.23	
Hanwha 🍋	(MSDS)	Revision date	2022.04.01	
	Hanwha TotalEnergies Petrochemical	Revision No.	REV.6	
	BCPP	Print date	2022.04.01	
 B. Conditions for safe storage, including any incompatibilities - Seal it before storage. - Store in cool and dry places. - Take caution of substances and conditions that should be avoided. 				
8. EXPOSURE CO	ONTROLS/PERSONAL PROTECTION			
A. Exposure limits 1) ACGIH TLV - Not available 2) OSHA PEL - Not available				
exposur e	s owner is recommended to maintai limits for the working place with mist/fume.	general ex	haust of	
1) Respira	rotective equipment tory protection conditions of frequent use or heavy o	otalEne exposure, Re		
- Respir - Consid	on may be needed. atory protection is ranked in order fr er warning properties before use. emical cartridge respirator with organ			

- Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).

- Any air-purifying respirator with a full facepiece and an organic vapor canister.

- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in

	Material Safety Data Sheet	Issue date	2011.09.23	
	(MSDS)	Revision date	2022.04.01	
Hanwha TotalEnergies	Hanwha TotalEnergies Petrochemical	Revision No.	REV.6	
	BCPP	Print date	2022.04.01	
combinat	ion with a separate escape suppl	v Anv self-	contained	
	g apparatus with a full facepiece.	<i>J</i> • • • • • • • • • • • • • • • • • • •		
2) Eye pro	tection			
	primary eye protection such as sp		nt safety	
	with a secondary protection face shie			
	e an emergency eye wash station and diate work area.	quick drench	shower in	
3) Hand pr				
_	ppropriate chemical resistant glove.			
4) Skin pr				
- Wear a	appropriate protective clothing by co	onsidering phy	sical and	
chemical p	roperties of chemicals.			
5) Others				
- Not av	ailable			
	Chemical Properties			
A. Appearance B. Odor : Not	(physical state, color etc.) : White available			
C. Odor Thres	hold : Not available	TotalEne	ergies	
D. pH : Not a				
	int/Freezing point ∶ 130~170℃			
	iling point and boiling point range:	Not available		
-	t: Not available n Rate: Not available			
-	ty (solid, liquid): Not available			
J. Explosion range of prints or high / low: Not available				
_	SURE: Not available			
L. Solubility	: Not available			
M. Vapor Dens	ity: Not available			
N. Specific g	ravity: 0.89~0.92			
0. n-octanol / water partition coefficient: Not available				
P. Autoigniti	on temperature: 380℃			

	Material Safety Data Sheet	Issue date	2011.09.23		
	(MSDS)	Revision date	2022.04.01		
Hanwha TotalEnergies	Hanwha TotalEnergies Petrochemical	Revision No.	REV.6		
	BCPP	Print date	2022.04.01		
Q. Decomposit	ion temperature: Not available				
· · ·	-				
K. VISCOSILY.	Not available				
S. Molecular	Weight: > 1,000				
10. STABILITY AND REACTIVITY					
A.Chemical Stability					
- This product is stable at steady-state when stored and handled under					
recommended conditions, temperature and pressure.					

B. Possibility of hazardous reactions

- No report about harmful polymerized reactions in the room temperature and pressure.

- C.Conditions to avoid
 - Avoid contact with heat, sparks, flame or other ignition sources.
 - Containers may burst or explode when exposed to heat
 - Store away from waterways and sewers
 - Cylinders exposed to fire may release flammable gases (no code)
- D. Incompatible material
 - Flammable substance

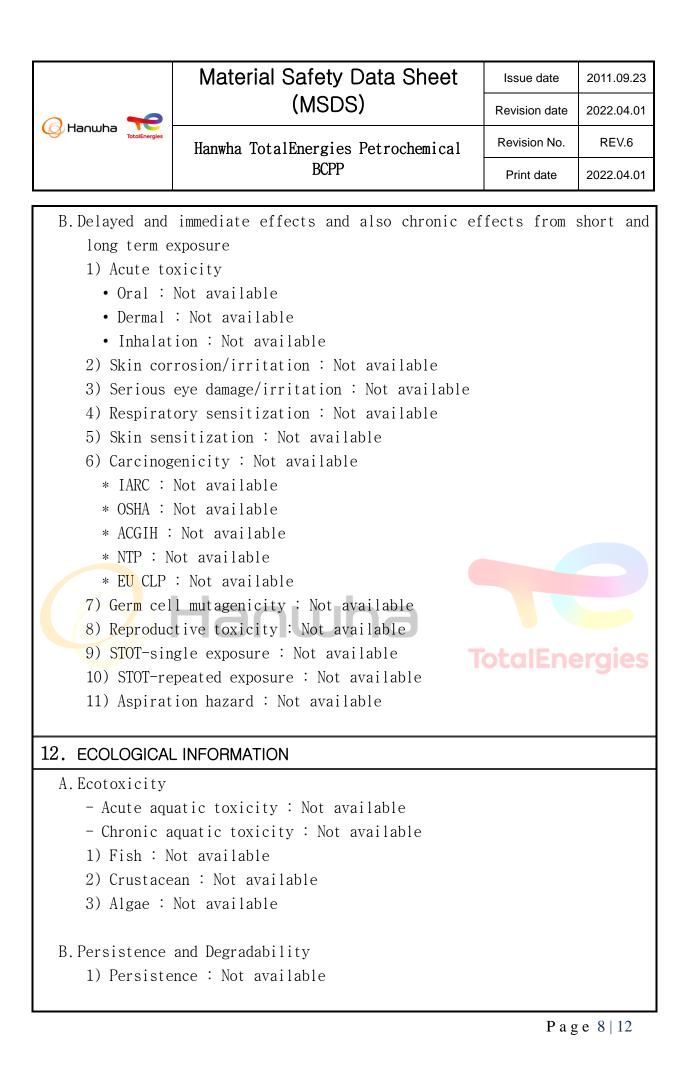
E.Hazardous decomposition products

- Thermal decomposition product \rightarrow carbon oxides

11. Toxicological Information

- A. Information on the likely routes of exposure
 - 1) Respiratory tracts : Not available
 - 2) Oral : Not available
 - 3) Skin contact : Not available
 - 4) Eye contact : Not available

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Hanwha 💦	Material Safety Data Sheet	Issue date	2011.09.23
	(MSDS)	Revision date	2022.04.01
	Hanwha TotalEnergies Petrochemical BCPP	Revision No.	REV.6
		Print date	2022.04.01

- 2) Degradabiltiy : Not available
- C. Bioaccumulation potential
 - 1) Bioaccumulation : Not available
 - 2) Biodegration : Not available
- D. Mobility in soil : Not available
- E.Other adverse effects - Not available

13. Disposal Considerations

- A.Disposal method
 - When this waste is solid state and doesn't mixed with other materials, it should be entrusted to the waste recycling processor
 - When it is impossible to recycle, it should be entrusted to the waste recycling processor in accordance with the national regulated disposal methods(ex. incineration, landfill, etc)
 - When this waste is mixed with designated wastes, it is entrusted to the waste recycling processor in accordance with the national regulated disposal methods for the designated wastes

B. Disposal instruction

- Take care not to burst the package bag and/or the package container
- Take care not to spill out of the package bag and/or the package container
- Don't dispose of the waste which mixed with the reactive material
- When disposing of the waste mixed with other materials, after stabilzing in order not to react each other, it should be safely disposed in accordance with the national regulation
- Dispose of the waste in accordance with all national laws and regulations

	Material Safety Data Sheet	Issue date	2011.09.23	
	(MSDS)	Revision date	2022.04.01	
Hanwha TotalEnergies	Hanwha TotalEnergies Petrochemical	Revision No.	REV.6	
	BCPP	Print date	2022.04.01	
14. TRANSPORT	INFORMATION			
A.UN No. (IMDG	CODE/IATA DGR) : Not applicable			
B.Proper shipp	ing name : Not applicable			
C.Hazard Class	: Not applicable			
D.IMDG CODE/IATA DGR Packing group : Not applicable				
E.Marine pollu	tant : Not applicable			
F.Special pree measures	cautions for user related to transpo	rt or trans	portation	
	ansport follows in accordance with Da	angerous goo	ds Safety	
Management Law. - Package and transport follow in accordance with Department of				
Transportation (DOT) and other regulatory agency requirements.				
- Air transport(IATA): Not subject to IATA regulations.				

- 1) POPs Management Law : Not regulated
 - 2) Information of EU Classification
 - Classification : Not applicable
 - 3) U.S. Federal regulations
 - OSHA PROCESS SAFETY (29CFR1910.119) : Not regulated
 - CERCLA Section 103 (40CFR302.4) : Not regulated
 - EPCRA Section 302 (40CFR355.30) : Not regulated
 - EPCRA Section 304 (40CFR355.40) : Not regulated
 - EPCRA Section 313 (40CFR372.65) Not regulated
 - 4) Rotterdam Convention listed ingredients : Not regulated
 - 5) Stockholm Convention listed ingredients : Not regulated

Hanwha TotalEnergies	Material Safety Data Sheet	Issue date	2011.09.23
	(MSDS)	Revision date	2022.04.01
	Hanwha TotalEnergies Petrochemical BCPP	Revision No.	REV.6
		Print date	2022.04.01

6) Montreal Protocol listed ingredients : Not regulated			
16. OTHER INFORMATION			
 A. Reference TSCA ; http://iaspub.epa.gov/sor_internet/registry/substreg/ searchandretrieve/searchbylist/search.do EU Regulation 1272/2008 TOMES; LOLI ; http://csi.micromedex.com/fraMain.asp?Mnu=0 UN Recommendations on the transport of dangerous goods 17th IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; http://monographs.iarc.fr ECHA CHEM; http://echa.europa.eu/web/guest/information-on-chemicals 			
<pre>/registered-substances</pre>			
 B. Key acronyms ACGIH(American Conference of Governmental Industrial Hygienists) ECHA(European Chemicals Agency) OECD(Organization for Economic Co-operation and Development) CERCLA(Comprehensive Environmental Response, Compensation, and Liability Act) IARC(International Agency for Research on Cancer) NIOSH(National Institute for Occupational Safety and Health) OSHA(Occupational Safety and Health Administration) NTP(National Toxicology Program) TSCA(Toxic Substances Control Act) NFPA(National Fire Protection Association) LC50(Lethal Concentration 50% kill) 			

Hanwha TotalEnergies	Material Safety Data Sheet (MSDS)	Issue date	2011.09.23
		Revision date	2022.04.01
	Hanwha TotalEnergies Petrochemical BCPP	Revision No.	REV.6
		Print date	2022.04.01

○ LD50(Lethal Dose 50% kill)

 \bigcirc EC50(50% Effect Concentration)

- STEL(Short Term Exposure Limit)
- TWA(Time weight Average)
- TLV(Threshold Limit Value)
- C. Issued date : 2011.09.23
- D.Revision number and date : 6th, 2022.04.01

E.Other material safety data sheet information:

- This SDS is prepared according to the Globally Harmonized System (GHS).

- This safety data sheet is based on current knowledge and information that we know.

- Please note that this information is not a guarantee of the product itself.

- This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability on completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.