

Safety Data Sheet

PT. Lotte Chemical Titan Nusantara. (Formerly known as PT TITAN Petrokimia Nusantara) Head Office : Setiabudi 2 Building Lt 3, Suite 306-307 JI HR Rasuna Said Kav 62, Jakarta - 12920, Indonesia Phone: +62 21 52907008 Fax: +62 21 52907281 Site Location : JI. Raya Merak Km.116 Cilegon 42436, Banten Indonesia Phone +62 254 572 468 Fax : +62 254 571290 Email: tsc@lottechem.co.id Phone +62 254 572 468 Fax : +62 254 571290

1. PRODUCT AND COMPANY IDENTIFICATION

MSDS Code Trade Name Grade Name Manufacturer/Supplier Address	PE-001 Titanvene [™] HIGH DENSITY POLYETHYLENE HD6070UA PT. Lotte Chemical Titan Nusantara Head Office : Setiabudi 2 Building 3rd floor, Suite 306-307 JI. HR. Rasuna Said Kav.62, Kuningan Jakarta, 12920 Indonesia.	Merak Works : Jl. Raya Merak Km.116 Rawa Arum, Pulo Merak Cilegon 42436, Banten, INDONESIA
Telephone Number Facsimile Number Emergency Telephone Number	+62 21 52907008 +62 21 52907281 +62 254 571333 ext.2222	+62 254 571333 +62 254 572468
2. HAZARD IDENTIFICATION		
Main Hazard Health Effects – Eyes	Not classified as hazardous Fine dust may cause irritation to the outer surface of the eye. Fumes from the heated material may cause lacrimation and severe irritation.	
Health Effects – Skin	Contact with hot material may cause thermal burns. Material not normally an irritant, however, repeated or prolonged contact may cause some irritation. Fumes from the heated material may be severely irritating and corrosive. Contact with hot material may cause thermal burns.	
Health Effects – Ingestion	Inert material regarded as harmless by ingestion (Ingestion is not considered a normal route of exposure).	
Health Effects – Inhalation	If heated to more than 300°C, the product may form vapors or fumes, which could cause irritation of the respiratory tract, coughing and shortness of breath.	

3. COMPOSITION / INFORMATION ON THE COMPONENTS

Product Trivial Name	High Density Polyethylene (HDPE)
Product Formal Name	Ethene-butene-1 copolymer
Product Chemical Family	Polyolefin

Component	CAS Number	Amount
Ethene-butene-1 copolymer	25087-34-7	< 100% Weight
Additive	Various	< 3% Weight

REACH Registration Number

Ethylene

: 01-2119462827-27-0136



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4. FIRST AID MEASURES			
First Aid – Eyes	Immediately flood the eyes with plenty of water for at least 15 minutes, holding the ey open. Obtain medical attention if soreness or redness persists. Wash skin thoroughly with soap and water, obtain medical attention if irritation persists. If burned by contact with hot material, flush skin immediately with large amounts of col water. If possible, submerge area in cold water. No attempt should be made to detach polymer adhering to the skin or to remove the tries of the with methameters.		
First Aid – Skin			
First – Aid – Ingestion First – Aid – Inhalation	clothing attach with molten material. Thermal burns require immediate medical attention In case of ingestion of large quantities, get medical attention. If affected by fumes from heated material, remove from source of exposure and mov the affected person into fresh air. Obtain medical attention if the symptoms continue.		
5. FIRE FIGHTING MEASURES			
Extinguishing Media	Use water spray, foam, carbon dioxide (use for live electrical installation), or dry chemical (post hazard concern).		
Unsuitable Extinguishing Media	Do not use direct water jets in the early stages of extinguishing a fire as this may help to spread the flames.		
Special Hazards of Products	Do not use water extinguishers in close proximity to live electrical installations. Hazardous combustion products may include carbon monoxide, small quantities o aldehydes, and may also produce molten polymer and black smoke. See Section 8.		
Protective Equipment for Fire Fighting	Wear full protective clothing and self-contained breathing apparatus.		
6. ACCIDENTAL RELEASE MEASU	IRES		
Personal Precautions Environmental Precautions	Granules spilled on the floor can cause slipping. Avoid creating a dust cloud. If the material has been released into a stream or a public sewer or other dr system inform the appropriate authorities.		
Spillage	Transfer into suitable containers for recovery or disposal.		
7. HANDLING AND STORAGE			
Handling	Safety glasses are recommended for handling pellets and also thermally resistant gloves for processing hot materials. Avoid contact with heated or other molten products. Thermal burns are the most common injury caused while processing molten HDPE. There is a risk of being splashed with molten materials, for example when purging or starting up an extruder or injection molding machine. Do not inhale fumes or vapor from molten product. Use local exhaust ventilation over processing area. HDPE materials, especially in powder form, can give rise to dust during		
Storage	 handling. HDPE dust is a nuisance dust (see Section 8) and is classified as flammable. As a consequence, generation and accumulation of dust, for instance in cutting or granulating area, must be avoided. Pneumatic conveying of powder and pellets can generate large static electrical charges Electrical discharge in presence of air can cause an explosion. Earth all equipment. Store HDPE materials on safe storage design. Store at ambient temperature in a dry and ventilated area. Do not store near highly 		
	flammable material, and store away from sources of heat. Keep away from direct sunlight (see also Section 8). The main hazards are related to pallet stock slippage and forklift truck maneuvers, which can cause injury to personnel. It is recommended that adequate procedures covering storage and handling of pallets are established and maintained. These procedures must be kept up to date and regularly audited. Pellet spills should be swept up immediately to prevent slipping.		



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Standards	Always consult the officially published Exposure Standard list when applying		
	occupational exposure standards.		
	Nuisance dust TLV : 10mg/m ³ (ACGIH)		
	Limits for the hazardous decomposition products (see Section 10) :		
	Carbon monoxide : UK EH40 : OES 55mg/m ³ 8h TWA		
	Carbon dioxide : UK EH40 : OES 9000mg/m ³ 8h TWA		
	Acrolein : UK EH40 : OES 0.25mg/m ³ 8h TWA		
	UK EH40 : OES 0.80mg/m ³ 15 min TWA		
	Formaldehyde : UK EH40 : MEL 2.5mg/m ³ 8h TWA. A2 Carcinogen		
	Reference :		
	UK EH40, Occupational exposure Limits, Health and Safety Executive,		
	HSE Books. PO Box 1999, Sunbury, Suffolk CO10 6FS, UK		
	Phone +44 1787 881165, Fax +44 1787 313995		
	ACGIH Threshold Limit Values		
	Publications Department, ACGIH		
	1330 Kemper Meadow Drive, Cincinnati, OH 4520-1634, USA.		
	Phone +1 513 7422020, Fax +1 513 7423355		
Engineering Control Measures	Use only in well ventilated area, minimum 6 air changes per hour.		
Respiratory Protection	Product processing, heat sealing of HDPE film, or operations involving the use of wires		
	or blades heated above 300°C may produce dust, vapor or fumes. To minimize risk of		
	overexposure to dust, vapor or fumes, it is recommended that a local exhaust system is		
	placed above the equipment, and that the working area is properly ventilated.		
Hand Protection	Direct contact with HDPE materials does not normally lead to skin irritation. However,		
	unnecessary contact with the material should be avoided. Employees with a history of		
	skin disease or allergy should receive medical clearance prior to employment involving		
Fire Destantion	direct contact with the material.		
Eye Protection	If there is risk of exposure to dust or splashing material, safety glasses should be worn.		
Body Protection	Standard work clothes and safety shoes.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Normally delivered as granules Color White or translucent Melting Point (°C) Melts between 126°C and 134°C Flash Point (PMCC) (°C) Above 300°C decomposition occurs and flash or fumes may occur Solubility in Water (kg/m³) Insoluble Density (kg/m³) 930 - 960 (ISO 1183) Auto-flammability (°C) 350°C **Dust Explosion Data** Minimum ignition temperature 400°C Softening Point (°C) 110°C – 128°C (VICAT) Solubility in Other Solvent Aromatics at elevated temperatures

10. STABILITY AND REACTIVITY

Stability

Stable, although heating above 300°C in air may produce carbon monoxide, hydrocarbon, aldehydes such as acrolein and formaldehyde and organic acids. Processing equipment should be provided with local exhaust ventilation.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Skin Sensitization Sub-acute/Sub-chronic Toxicity No evidence of acute toxicity reported. No known reports of skin sensitization. No reports of adverse long-term effects following repeated exposures.



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12. ECOLOGICAL INFORMATION	
Mobility Persistence/Degradability Bio-accumulation Ecotoxicity	If released to water the product will float. The material is not biodegradable. Product is not expected to bioaccumulate. The material is not toxic.
13. DISPOSAL	
Product Disposal Container Disposal	Recover or recycle if possible. Otherwise, incinerate in appropriate incinerators with energy recovery, or dispose of in landfills in accordance with local regulations. Empty containers should be recovered for reuse or recycling or disposed of in landfills in accordance with local regulations.
14. TRANSPORT INFORMATION	
UN – Class ADR/RID – Class IMDG – Class IATA – Class	Not classified Not classified Not classified Not classified
15. REGULATORY INFORMATION	
Labeling Information R Phrases S Phrases EINECS Listing EC Annex I Number EC Annex I Classification EC Annex I Classification TSCA Listing AICS/NICNAS Listing DSL/NDSL (Canadian) Listing	Not applicable Not applicable Polymer, exempt from listing Not listed Not classified according to EC Directives 67/548/EC and 1999/45/EC Not classified according to Regulation (EC) No 1272/2008 (CLP) Yes Yes DSL listed
16. OTHER INFORMATION	
MSDS Data Revision Next Evaluation MSDS Distribution Notice	April 2018 April 2021 The information in this document shall be made available to all who may handle Titanvene [™] HIGH DENSITY POLYETHYLENE products This material Safety Data Sheet is based upon data considered to be accurate as at the time of its preparation. Despite our efforts, it may not be up to date or applicable to the circumstances of any particular case. We are not responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices or from hazards inherent in the nature of the product.

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