

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 : Jl. Raya Merak Km.116 Cilegon 42436, Banten Indonesia Phone +62 254 572 468 Fax : +62 254 571290

Email: tsc@lottechem.co.id Website: www.lottechem.co.id

Phone +62 254 572 468 Fax: +62 254 571290

1. PRODUCT AND COMPANY IDENTIFICATION

MSDS Code PE-001

Trade Name Titanvene™ HIGH DENSITY POLYETHYLENE

Grade Name HD5609AA

Manufacturer/Supplier PT. Lotte Chemical Titan Nusantara

Address Head Office:

Setiabudi 2 Building 3rd floor, Suite 306-307

Jl. HR. Rasuna Said Kav.62, Kuningan

Jakarta, 12920 Indonesia.

Telephone Number +62 254 571333 +62 21 52907008 **Facsimile Number** +62 21 52907281 +62 254 572468

Emergency Telephone Number +62 254 571333 ext.2222

2. HAZARD IDENTIFICATION

Health Effects - Ingestion

Health Effects - Inhalation

Not classified as hazardous Main Hazard

Fine dust may cause irritation to the outer surface of the eye. Health Effects - Eyes

Fumes from the heated material may cause lacrimation and severe irritation.

Contact with hot material may cause thermal burns.

Material not normally an irritant, however, repeated or prolonged contact may cause Health Effects - Skin

some irritation.

Fumes from the heated material may be severely irritating and corrosive.

Contact with hot material may cause thermal burns. Inert material regarded as harmless by ingestion

(Ingestion is not considered a normal route of exposure).

Dust may cause respiratory tract irritation. See sections 7 and 8.

If heated to more than 300°C, the product may form vapors or fumes, which could cause

Merak Works: Jl. Rava Merak Km.116

Cilegon 42436.

Rawa Arum, Pulo Merak

Banten, INDONESIA

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 eye

open. Obtain medical attention if soreness or redness persists.

First Aid - Skin 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 cold water. If possible, submerge area in cold water.

No attempt should be made to detach polymer adhering to the skin or to remove clothing attach with molten material. Thermal burns require immediate medical attention.

In case of ingestion of large quantities, get medical attention.

First - Aid - Ingestion First - Aid - Inhalation

If affected by fumes from heated material, remove from source of exposure and move the affected person into fresh air. Obtain medical attention if the symptoms continue.

5. FIRE FIGHTING MEASURES

Use water spray, foam, carbon dioxide (use for live electrical installation), or dry **Extinguishing Media** 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.

Do not use water extinguishers in close proximity to live electrical installations. **Special Hazards of Products**

Hazardous combustion products may include carbon monoxide, small quantities of aldehydes, and may also produce molten polymer and black smoke. See Section 8.

Wear full protective clothing and self-contained breathing apparatus.

Protective Equipment for Fire Fighting

6. ACCIDENTAL RELEASE MEASURES

Granules spilled on the floor can cause slipping. Avoid creating a dust cloud. Personal Precautions **Environmental Precautions**

If the material has been released into a stream or a public sewer or other drainage

system inform the appropriate authorities.

Spillage Transfer into suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Safety glasses are recommended for handling pellets and also thermally resistant gloves Handling 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

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.

Storage



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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/m3 (ACGIH)

Limits for the hazardous decomposition products (see Section 10):

Carbon monoxide : UK EH40 : OES 55mg/m³ 8h TWA

Carbon dioxide : UK EH40 : OES 9000mg/m³ 8h TWA

Acrolein : UK EH40 : OES 0.25mg/m³ 8h TWA

UK EH40 : OES 0.80mg/m³ 15 min TWA

Formaldehyde : UK EH40 : MEL 2.5mg/m³ 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

Respiratory Protection

Use only in well ventilated area, minimum 6 air changes per hour.

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

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

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 No evidence of acute toxicity reported. Skin Sensitization No known reports of skin sensitization.

Sub-acute/Sub-chronic Toxicity No reports of adverse long-term effects following repeated exposures.



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12. ECOLOGICAL INFORMATION

MobilityIf released to water the product will float.Persistence/DegradabilityThe material is not biodegradable.

Bio-accumulation Product is not expected to bioaccumulate.

Ecotoxicity The material is not toxic.

13. DISPOSAL

Product Disposal Recover or recycle if possible.

Otherwise, incinerate in appropriate incinerators with energy recovery, or dispose of in

landfills in accordance with local regulations.

Container Disposal 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
Not classified
Not classified
IMDG - Class
Not classified
IATA - Class
Not classified

15. REGULATORY INFORMATION

Labeling Information

R Phrases Not applicable S Phrases Not applicable

EINECS Listing Polymer, exempt from listing

EC Annex I Number Not listed

EC Annex I Classification Not classified according to EC Directives 67/548/EC and 1999/45/EC

TSCA Listing Yes
AICS/NICNAS Listing Yes
DSL/NDSL (Canadian) Listing DSL listed

16. OTHER INFORMATION

MSDS Data Revision April 2018 Next Evaluation April 2021

MSDS Distribution The information in this document shall be made available to all who may handle

Titanvene™ HIGH DENSITY POLYETHYLENE products

Notice

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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