

SAFETY DATA SHEET

Section 1. Identification

Product identifier : Therban XT VPKA 8889
Material Number : 05487412
Chemical name : Hydrogenated Nitrile Rubber (HNBR)
Synonym : Hydrogenated Nitrile Rubber (HNBR)
Chemical family : Synthetic rubber
Identified uses : rubber
Supplier/Manufacturer : ARLANXEO USA LLC
111 RIDC Park West Drive
Pittsburgh, PA 15275-1112
United States (USA)

For information: US/Canada (800) LANXESS
International +1 412 809 1000
In case of emergency : Chemtrec (800) 424-9300
International (703) 527-3887
Lanxess Emergency Phone (800) 410-3063.

Section 2. Hazards identification

HAZCOM Standard Status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), the SDS contains valuable information critical to the safe handling and proper use of the product. The SDS should be retained and available for employees and other users of this product.

Physical state : Solid.
Color : Light brown.
Classification of the substance or mixture : Not classified.
Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.
Hazard Not Otherwise Classified (HNOC) : None known.
Precautionary statements
Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.
Supplemental label elements : Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.

Section 3. Composition/information on ingredients

Substance/mixture : Polymer
Chemical name : Hydrogenated Nitrile Rubber (HNBR)

The following potentially hazardous ingredient(s) are used to formulate this product. As supplied, the ingredient(s) are bound in a polymer matrix. Because they are bound in the matrix, they are not expected to create any unusual hazards when handled and processed, according to good manufacturing and industrial hygiene practices and the guidelines provided by this SDS.

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Triphenyl Phosphine	≤1	603-35-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Get medical attention if thermal burns occur.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Contact with hot material will cause thermal burns.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Reddening, itching, swelling, burning and possible permanent damage.
- Ingestion** : No specific data.

Potential chronic health effects

No known significant effects or critical hazards.

Notes to physician : Treat symptomatically. No specific treatment.

Protection of first-aiders : No special measures required.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon monoxide
carbon dioxide
nitrogen oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
- Environmental precautions** : No special measures required.
- Methods and materials for containment and cleaning up** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. If molten, allow material to cool and place into an appropriate marked container for disposal. Prevent entry into sewers, water courses, basements or confined areas.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
- Conditions for safe storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Empty containers or liners may retain some product residues.

Section 8. Exposure controls/personal protection

Occupational exposure limits

Ingredient name	Exposure limits
Triphenyl Phosphine	None

- Appropriate engineering controls** : Thermal processing operations should be ventilated to control gases and fumes given off during processing.

Personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Skin protection** : Wear cloth work clothing including long pants and long-sleeved shirts. gloves , When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molten product. Suitable protective footwear.
- Eye/face protection** : If contact with product is possible, wear safety glasses with side shields.
- Medical Surveillance** : Not available.

Section 9. Physical and chemical properties

- Physical state** : Solid. [rubber bales]
- Color** : Light brown.
- Odor** : Faint odor.
- Odor threshold** : Not available.
- pH** : Not available.
- Boiling point** : Not available.
- Melting point** : Not available.
- Flash point** : Closed cup: >300°C (>572°F)
- Evaporation rate** : Not available.
- Explosion limits** : Not available.
- Vapor pressure** : Not available.
- Density** : 0.97 g/cm³
- Specific gravity (Relative density)** : Not available.
- Solubility in water** : Insoluble in the following materials: cold water
- Partition coefficient: n-octanol/water** : Not available.
- Vapor density** : Not available.
- Viscosity** : Not available.
- Ignition temperature** : >300°C
- Auto-ignition temperature** : >300°C (>572°F)
- Decomposition temperature** : >300°C

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Avoid extremes of temperature and direct sunlight.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

- Information on the likely routes of exposure** : Dermal contact.

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Contact with hot material will cause thermal burns.
- Ingestion** : No known significant effects or critical hazards.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
Inhalation : No specific data.
Skin contact : Reddening, itching, swelling, burning and possible permanent damage.
Ingestion : No specific data.

Potential chronic health effects

Short term exposure

- Potential immediate effects** : Not available.

Long term exposure

- Potential delayed effects** : Not available.
General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Test
Triphenyl Phosphine	LD50 Oral	Rat	>700 mg/kg	-	-
Triphenyl Phosphine	LD50 Dermal	rabbit - Male, Female	>4000 mg/kg Dosage caused no mortality	-	-
Triphenyl Phosphine	LC50 Inhalation Dusts and mists	Rat	>16.8 mg/l	1 hours	-
		Rat	12.5 mg/l	4 hours	-

Irritation/Corrosion

Conclusion/Summary

- Skin** : Triphenyl Phosphine:Non-irritating (Rabbit)
Eyes : Triphenyl Phosphine:Non-irritating (Rabbit)

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Triphenyl Phosphine	skin	Guinea pig	Sensitizing

- Skin** : Triphenyl Phosphine:sensitizer

Chronic toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Triphenyl Phosphine	Sub-chronic NOAEL Oral	Rat - Male, Female	6 mg/kg bw/day	91 days; 7 days per week
	Sub-chronic LOAEL Oral	Rat - Male, Female	60 mg/kg bw/day	91 days; 7 days per week
	Chronic NOAEL Inhalation Dusts and mists	Dog - Male, Female	<0.0018 mg/l	28 days; daily
	Sub-acute LOAEL Inhalation Dusts and mists	Rat - Male	2400 mg/m ³	12 weeks; 4 hours per day

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Triphenyl Phosphine	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	Micronucleus assay	Experiment: In vivo Subject: Mammalian-Animal	Negative

Carcinogenicity

Product/ingredient name	CAS #	IARC	NTP	OSHA
Triphenyl Phosphine	603-35-0	Not classified.	Not classified.	Not classified.

Reproductive toxicity

Product/ingredient name	Effects	Species	Dose	Exposure
Triphenyl Phosphine	NOAEL	Rat	Oral: 6 mg/kg bw/ day (general toxicity)	91 days; 7 days per week
	NOAEL	Rat	Oral: 120 mg/kg bw/ day (reproduction toxicity)	91 days; 7 days per week

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Result	Species	Exposure
Triphenyl Phosphine	OECD 201 Alga, Growth Inhibition Test	Acute EC50 >5 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours (biomass) , (growth rate)
	DIN 38412 Part 27	Acute EC50 >10000 mg/l	Bacteria - Activated sludge	30 minutes
	OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test DIN 38412, L15	Acute EC50 >5 mg/l Fresh water	Daphnia - <i>Daphnia</i> <i>magna</i>	48 hours
	OECD 201 Alga, Growth Inhibition Test	Acute LC50 >10000 mg/l Fresh water Chronic NOEC >5 mg/l Fresh water	Fish - <i>Leuciscus</i> <i>idus</i> Algae - <i>Desmodesmus</i> <i>subspicatus</i>	96 hours 72 hours

Conclusion/Summary : Not available.

Persistence and degradability

Section 12. Ecological information

Product/ingredient name	Test	Result	Dose	Inoculum
Triphenyl Phosphine	OECD 301F Ready Biodegradability - Manometric Respirometry Test	<20 % - Not readily - 28 days	-	Activated sludge

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Triphenyl Phosphine	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Triphenyl Phosphine	>2.587	30	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

RCRA classification : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	-	-	-	-		Not regulated.
IMDG Class	-	-	-	-		Not regulated.
IATA-DGR Class	-	-	-	-		Not regulated.

PG* : Packing group

RQ : 0 lbs

Section 15. Regulatory information

SARA 311/312 : None

SARA Title III Section 302 : None
Extremely Hazardous Substances

SARA Title III Section 313 : None
Toxic Chemicals

US EPA CERCLA : None
Hazardous Substances (40 CFR 302.4)

State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

The concentrations reported below are maximum values.

<u>Ingredient name</u>	<u>CAS number</u>	<u>State Code</u>	<u>Concentration (%)</u>
Hydrogenated Carboxylated Acrylonitrile-Butadiene Terpolymer	Trade secret.		≥90
Massachusetts Substances: MA - S			
Massachusetts Extraordinary Hazardous Substances: MA - Extra HS			
New Jersey Hazardous Substances: NJ - HS			
Pennsylvania RTK Hazardous Substances: PA - RTK HS			
Pennsylvania Special Hazardous Substances: PA - Special HS			

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<u>Ingredient name</u>	<u>CAS #</u>	<u>Concentration (%)</u>	<u>Cancer</u>	<u>Reproductive</u>
Acrylonitrile	107-13-1	≤0.1	Yes	
1,3-Butadiene	106-99-0	≤0.1	Yes	Yes
U.S. Toxic Substances Control Act : Listed on the TSCA Inventory.				

Section 16. Other information

Hazardous Material Information System :	Health	1
	Flammability	1
	Physical hazards	0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme
*=Chronic

The customer is responsible for determining the PPE code for this material. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.) :

Section 16. Other information



0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

Our method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided as a customer service.

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Product Safety and Regulatory Affairs

▣ Indicates information that has changed from previously issued version.

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