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Material Safety Data Sheet

Keltan® EPDM

Grades: 1446A, 2308, 2340 A, 2506, 2630A, 2636A, 40-A, 4506,
 4906, 55, 5508, 5808, 70-A, 7350A, 7506

1. GENERAL INFORMATION

Chemical Name: Ethylene, propylene, ethylidene norbornene, terpolymer rubber (EPDM)
 CAS Number: 25038-36-2
 CAS Name (Rubber only): Bicyclo (2,2,1-)hept-2-ene, 5-ethylidene-, polymer with ethene and 1-propene
 Product Use: Rubber articles and rubber modified articles

2. CHEMICAL COMPOSITION

Ingredient	CAS #	Wt % (max)	Hazard Classification
EPDM	25038-36-2	99	NH
Polyethylene (pelletized 2636A only)	9002-88-4	1.5	Inhalation

3. PHYSICAL DATA

Physical State:	Bales or pellets	Odor:	none to
slight			
Appearance:	White to amber	Odor Threshold:	NE
Melting/Freezing Points:	NA	Specific Gravity (range):	0.86-0.88
Vapor Pressure:	NA	Boiling Point:	NA
Vapor Density:	NA	Volatiles (% by weight, @105°C):	1.0 max
Solubility in Water at 20°C:	Insoluble	Evaporation rate:	NA
Coefficient in Water/Oil Distribution:	NE	pH:	NA

4. FIRE AND EXPLOSION HAZARD DATA

Flash Point, Method:	>300°C, COC	Upper/Lower Explosive Level:	NA
Auto Ignition Temperature:	Above 350°C (730°F)	Upper/Lower Flammable Limits:	NE
Ignition Temperature:	>200°C, 392°F		
Combustible:	No, but the product will burn if ignited.		
Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, products from incomplete combustion, silicates, and various hydrocarbons.		
Extinguishing Media:	All fire extinguishing media permitted - foam or water fog recommended.		
Special Fire Fighting Procedure:	During emergency conditions, exposure to thermal decomposition products may cause a health hazard. Use of NIOSH approved self-contained breathing apparatus is recommended.		
Sensitivity to Static Discharge:	NA	Sensitivity to Impact/Shock:	NA

5. PROTECTIVE AND PREVENTIVE MEASURES

Personal Protective Equipment: Eye: Wear Safety glasses.

Skin: Wear clothing appropriate to prevent skin contact. Use gloves resistant to chemicals and petroleum distillates. Where contact may occur with hot material, wear thermal resistant gloves, arm protection, and a face shield.
Respiratory: Not normally required at ambient temperatures. If processing in area where ventilation is inadequate or ignition has occurred, wear a NIOSH-approved organic vapor respirator with mechanical filtration.

Handling Procedures and Equipment:

Avoid skin and eye contact, practice good personal hygiene. Avoid inhalation of fumes/vapors from hot rubbers, compounds and vulcanizates.

Engineering Controls:

Local exhaust ventilation is recommended during all hot processing operations.

Exposure Guidelines:

Respirable Dust	PEL (OSHA)	TLV(ACGIH)
Polyethylene (see Note 1)	5 mg/m ³	3 mg/m ³

6. SPECIAL REGULATORY HAZARD CLASSIFICATIONS FOR HEALTH, SAFETY, AND FOOD

OSHA:

The following ingredients in this product are regulated individually as hazardous materials under OSHA Hazard Communication Standard 29 CFR Part 1910.1200. None

FDA:

These grades are approved for use in complying with 21 CFR 177.2600, "Rubber Articles for Repeated Use": 40-A, 4506, 5508, 70-A.

TSCA:

Components of these products are listed under TSCA Chemical Substance Inventory.

TRANSPORTATION CLASSIFICATIONS:

United States DOT: Designation and labeling are not applicable, as products are not defined or designated as a hazardous material by U.S. Department of Transportation under Title 49 of CFR.

Canada: These products are not regulated under the Canadian Transportation of Dangerous Goods Regulations.

IATA: These products are not regulated under the International Air Transport Association Dangerous Goods regulations.

SARA Title III:

Section 302/304. Extremely Hazardous Substances - None.

Section 311. Hazardous Substances - Not Applicable.

Section 313. This product is not subject to reporting requirements.

CEPA:

Components of these products are included in Canada's DSL.

EC:

The European Commission does not consider these products hazardous.

WHMIS:

These products are not considered Controlled Products under Canada's Workplace Hazardous Material Information System.

7. TOXICOLOGY AND HEALTH DATA

Medical Conditions

Aggravated by Exposure:

Some individuals with specific sensitivities may exhibit eye, nose, throat or thermal irritation with prolonged exposure to processing fumes. Individuals with pre-existing skin disorders should avoid contact with this material.

Specific Hazard:

No acute or chronic hazards or effects are known.

Routes of Exposure:

Eye Contact: Not a probable route of exposure. Particulates may scratch eye surface or cause mild irritation.

Skin Contact: A single prolonged exposure is not likely to result in material being absorbed through the skin in harmful amounts. Repeated, prolonged exposure may cause mild skin irritation in some individuals. Exposure to hot material may cause thermal burns.

Ingestion: Not a probable route of exposure.

Inhalation: Not a probable route of exposure under conditions of normal use. Hot fumes or vapors that may form during processing or burning can cause irritation to the respiratory tract.

Toxicology Information:

Reproductive Effects: None reported
LD50 = NE
Tetragenicity: None reported

Mutagenicity: None reported
LC50 = NA
Carcinogenicity: None reported.

8. EMERGENCY AND FIRST AID PROCEDURES

Eye Contact: Remove as for any foreign object. Flush with clean water for 15 minutes. Obtain medical attention if irritation persists.
Skin Contact: Wash with soap and water. If thermal irritation, flush affected area with cold water to dissipate heat, then cover with clean cotton sheeting or gauze and get prompt medical attention.
Inhalation: If fumes/vapors are inhaled, move to fresh air, aid breathing if necessary. Obtain medical attention if irritation persists.
Ingestion: Unlikely to occur.

9. CHEMICAL REACTIVITY

Chemical Stability: Product is stable at ambient temperature and pressure.
Conditions to Avoid: Heat (65.5°C, 150°F max) will cause thermal decomposition; ignition source.
Incompatibility with other Materials: None known.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, various hydrocarbons, and partially oxidized hydrocarbons.
Hazardous Polymerization: Will not occur.

10. SPILLS, DISPOSAL, STORAGE GUIDELINES

Spill and Release Information: Repackage uncontaminated rubber. Reuse or dispose of as noted below.
Disposal Information: Reuse if possible. Material as supplied is not characterized as hazardous under RCRA. Dispose in accordance with local, state, and federal regulations and applicable environmental regulations.
Storage: Store below 35°C (95°F) in dry area and in the absence of direct, natural, or artificial light.

11. LABELS

OSHA: Not Required WHMIS: Not Required

12. NOTES TO USERS

Note 1: Exposure limits for particulates not otherwise classified/regulated.

ADDITIONAL INFORMATION, ABBREVIATIONS AND NOTICES TO USER

ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstract Service
CEPA: Canadian Environmental Protection Act CFR: Code of Federal Regulations
DOT: Department of Transportation DSL: Domestic Substance List
EPA: Environmental Protection Agency NA: Not applicable
EEC: European Economic Community NE: Not established
FDA: Food and Drug Administration (U.S.) NH: Not hazardous
IARC: International Agency for Research on Cancer PEL: Permissible Exposure Limits
NFPA: National Fire Protection Association TLV: Threshold Limit Value

RCRA: Resource and Conservation Recovery Act
Act
TSCA: Toxic Substance Control
LC50: The concentration in air that causes death in 50% of the animals exposed
LD50: The dose that causes death in 50% of the animals exposed
mg/m³: Milligrams (mg) of substance per cubic meter (m³) of air; method of expressing the concentration of a substance in air
IATA: International Air Transportation Association
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
SARA: Superfund Amendments and Reauthorization Act
WHMIS: Workplace Hazardous Material Information System

NOTICE: Although the information contained in this MSDS is believed to be correct as of the date hereof, DSM Elastomers Americas makes no representation as to the completeness or accuracy thereof. Those who utilize the product described herein are responsible for determining (a) the suitability of the product for the intended use and (b) the appropriate manner of processing the product to insure safety and quality. In no event will DSM Elastomers Americas be responsible for damages of any nature resulting from the use of or reliance upon the information contained herein.

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