

P.O. Box 2591, Baton Rouge, LA 70821-2591  
Telephone (504) 267-3400  
Fax (504) 267-3629

## MATERIAL SAFETY DATA SHEET

### Keltan® EPDM

#### 1. GENERAL INFORMATION

Chemical Name: Ethylene, propylene, ethylidene norbornene, terpolymer rubber, EPDM  
CAS Number: 25038-36-2  
CAS Name: Bicyclo(2,2,1)-hept-2-ene, 5-ethylidene-, polymer with ethene and 1-propene  
Applicable Grades: 11, 21, 24, 27, 28, 39F, 43, 52F, 57, 57C, 57F, 65, 66, 67F  
Product Use: Rubber and modified articles  
Telephone No.: (504) 267-3400  
Distributed by: DSM Copolymer, Inc.  
Street Address: 5955 Scenic Highway, Baton Rouge, LA 70805  
Mailing Address: P. O. Box 2591, Baton Rouge, LA 70821  
Date Prepared: 5-12-97  
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#### 2. CHEMICAL COMPOSITION

<u>Ingredient</u>	<u>CAS #</u>	<u>Wt. % Range</u>	<u>Hazard Classification</u>
EPDM	25038-36-2	99	NH

#### 3. PHYSICAL DATA

Physical State: Solid, bales or crumb (F in Grade Name denotes friable bale, C denotes crumb)  
Appearance: white to amber, clear pellets  
Odor: slight  
Odor Threshold: NE  
Melting/Freezing Points: NA  
Specific Gravity: 0.86  
Boiling Point: NA  
Vapor Pressure: NA  
Vapor Density: NA  
Volatiles (% by weight, @105°C): 0.75-1.0 max  
Solubility in Water at 20°C: Insoluble  
Coefficient in Water/Oil Distribution: NE  
pH: NA  
Evaporation rate: NA

#### 4. FIRE AND EXPLOSION HAZARD DATA

Flash Point, Method: Above 300°C, 572°F  
Auto Ignition Temperature: In the range 350°-380°C (662°-716°F)  
Ignition Temperature: Above 200°C, 392°F  
Combustile: No, but the product will burn if ignited.  
Upper/Lower Flammable Limits: NE

Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, products from incomplete combustion, 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.
Upper/Lower Explosive Level:	NA
Sensitivity to Impact/Shock:	NA
Sensitivity to Static Discharge:	NA
NFPA Classification:	Fire = 1, Others = 0

## 5. SPECIAL REGULATORY HAZARD-HEALTH, SAFETY, AND FOOD

OSHA:	These products are not hazardous under Hazard Communication Standard 29 CFR Part 1910.1200.
TSCA:	Components of these product are listed under TSCA Chemical Substance Inventory.
DOT:	United States: 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.
SARA Title III:	<u>Section 302/304.</u> Extremely Hazardous Substances - None. <u>Section 311.</u> Hazardous Substances - Not Applicable. <u>Section 313.</u> This product is not subject to reporting requirements.
WHMIS:	These products are not considered Controlled Products under Canada's Workplace Hazardous Material Information System.
CEPA:	Components of these products are included in Canada's DSL.
EC:	These products are not considered hazardous by the European Commission.

## 6. TOXICOLOGY AND HEALTH DATA

Specific Hazard:	No acute or chronic hazards or effects are known.
Medical Conditions Aggravated by Exposure:	Some individuals with specific sensitivities may exhibit eye, nose, throat or thermal irritation with prolonged exposure to processing fumes.
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 which may form during processing can cause irritation to the respiratory tract.
Toxicology Information:	LD50 = NE; LC50 = NA



Reproductive Effects: None reported  
Tetragenicity: None reported  
Mutagenicity: None reported  
Carcinogenicity: None reported

## 7. PROTECTIVE AND PREVENTIVE MEASURES

**Personal Protective Equipment:** **Eye:** Wear safety glasses.  
**Skin:** Wear clothing appropriate to prevent skin contact. 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, 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:** NA

## 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:** High temperature, 300°-350°C (572°-662°F) 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 if contaminated.

**Disposal Information:** Reuse if possible. Dispose in accordance with local, state, and federal regulations and applicable environmental regulations. Materials as supplied is not characterized as hazardous under RCRA.

**Storage:** Store below 35°C (95°F) in dry area and in the absence of direct, natural, or artificial light.

## 11. LABELS

OSHA: NA  
WHMIS: NA

## 12. ADDITIONAL INFORMATION

### Abbreviations:

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
EEC:	European Economic Community
EPA:	Environmental Protection Agency
FDA:	Food and Drug Administration (U.S.)
IARC:	International Agency for Research on Cancer
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/m <sup>3</sup> :	Milligrams (mg) of substance per cubic meter (m <sup>3</sup> ) of air; method of expressing the concentration of a substance in air
NA:	Not applicable
NE:	Not established
NH:	Not hazardous
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
OSHA:	Occupational Safety and Health Administration
PEL:	Permissible Exposure Limits
RCRA:	Resource and Conservation Recovery Act
SARA:	Superfund Amendments and Reauthorization Act
TLV:	Threshold Limit Value
TSCA:	Toxic Substance Control 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 Copolymer 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 Copolymer be responsible for damages of any nature resulting from the use of or reliance upon the information contained herein.