

SAFETY DATA SHEET

Keltan® 1446A

1. Identification of the substance/preparation and company/undertaking

Product name	: Keltan® 1446A
Chemical product name	: Ethylene-propylene-(diene) elastomer, EP(D)M
Supplier	: DSM Elastomers Europe B.V. Poststraat 1, 6135 KR Sittard P.O. Box 43, 6130 AA Sittard The Netherlands
Emergency telephone number	: The Netherlands: +31 (0)46 476 55 55
e-mail address of person responsible for this SDS	: info.worldwide@dsm.com
Recommended use	: Elastomeric component in rubber compounds, plastics modification and oil modification, for applications in automotive, construction, wire and cable and general rubber goods.

2. Hazards identification

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification	: Not classified.
Human health hazards	: Heated material can cause thermal burns.
Environmental hazards	: Based on the available data of this product no hazardous properties are known.
Physical/chemical hazards	: Combustible.
Remarks	: The material burns slowly with high smoke density and flaming drips.

3. Composition/information on ingredients

Substance/preparation : Preparation

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

4. First-aid measures

Remarks	: During heating and processing of the material small amounts of free monomer may evaporate resulting in airborne concentration that may cause irritating effects of the respiratory tract and nausea.
Effects and symptoms	
Inhalation	: Not applicable.
Ingestion	: There is no known acute effect after over-exposure to this product.
Skin contact	: Heated material can cause thermal burns resulting in pain, redness, blistering.
Eye contact	: May cause eye irritation. (redness).
First-aid measures	
Inhalation	: Not applicable.
Ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Obtain medical attention if symptoms occur.
Skin contact	: Rinse with plenty of running water. Get medical attention.
Eye contact	: Rinse with plenty of running water. Obtain medical attention if symptoms occur.
First aid facilities	: No special recommendations.

5. Fire-fighting measures

Extinguishing media	
Small fire	
Suitable	: Use dry chemical or CO ₂ .
Large fire	
Suitable	: Use dry chemical powder. Alcohol-resistant foam.
Unusual fire/explosion hazards	: No specific hazard.
Hazardous thermal decomposition products	: In case of fire, may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, (dense) black smoke, aldehydes, organic acids.
Special fire-fighting procedures	: Avoid contact with heated material.
Protection of fire-fighters	: Wear suitable protective clothing. Self-contained breathing apparatus.

6. Accidental release measures

- Personal precautions** : Use suitable protective equipment (section 8).
- Environmental precautions** : No special measures required.
- Clean-up Methods**
- Small spill and leak** : Vacuum or sweep up material and place in a designated, labelled waste container. Clean up affected area with a large amount of water.
- Large spill and leak** : Vacuum or sweep up material and place in a designated, labelled waste container. Recycle, if possible. Prevent formation of dust clouds. Clean up affected area with a large amount of water.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

- Handling** : Use with adequate ventilation.
- Storage** : Store in a fireproof location. Keep away from incompatible materials and avoid specific conditions (See section 10).
- Storage temperature** : Store between the following temperatures: 15 and 25 °C.
- Remarks** : Relative humidity should be kept below 65%. Never stack pallets more than two high to prevent the risk of them falling over. Never stack pallets more than two high to prevent the risk of them falling over. For further information about handling and storage see 'Keltan® EPDM packaging storage conditions'.

Note: See section 10 for stability and reactivity

8. Exposure controls/personal protection

- Engineering measures** : Use only with adequate ventilation.
- Hygiene measures** : When using do not eat, drink or smoke. Wash hands after handling compounds and before eating, smoking and using the lavatory and at the end of the day.
- Personal protective equipment - Production scale**
- Respiratory system** : No special protection is required. In case of insufficient ventilation, wear suitable respiratory equipment.
- Skin and body** : Working clothes.
- Eyes** : Face shield.
- Hands** : When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molten product.
- Remarks** : If general ventilation is inadequate, local exhaust ventilation should be used to dispose of vapours from hot processing equipment, particularly during purging. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Advice on personal protection is applicable for high exposure levels. Select proper personal protection based on a risk assessment of the actual exposure situation.

9. Physical and chemical properties

- Physical state** : Solid. [Bales]
- Colour** : Beige.
- Odour** : Odourless.
- Flash point** : 300 °C
- Lower explosion limit** : Not available.
- Upper explosion limit** : Not available.
- Auto-ignition temperature** : > 370 °C
- Density (g/cm³)** : 0.86 g/cm³
- Solubility** : Insoluble in the following materials: cold water.

10. Stability and reactivity

- Stability** : Stable under recommended storage and handling conditions (see section 7).
- Conditions to avoid** : Keep away from heat, sparks and flame. Exposure to (sun)light. Relative humidity should be kept below 65%.
- Materials to avoid** : Oxidising agent.
- Hazardous decomposition products** : At processing temperatures some degree of thermal degradation may occur. Highly dependent on temperature and environmental conditions, a variety of decomposition products may be formed, such as low molecular weight hydrocarbons and hydrocarbon oxidation products (acids, ketones, aldehydes).

11. Toxicological information

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Eye contact** : No known significant effects or critical hazards.

11. Toxicological information**Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Ethylene-propylene-(diene) elastomer, EP(D)M	LD50 Oral	Rat	>5000 mg/kg	-

Potential chronic health effects

Chronic effects : 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.

Chronic toxicity : No specific data.

Carcinogenicity : No specific data.

Mutagenicity : No specific data.

Teratogenicity : No specific data.

Reproductive toxicity : No specific data.

Remarks : Acute oral toxicity (LD50) Estimated.

12. Ecological information

Environmental effects : Not readily biodegradable.

Aquatic ecotoxicity : No specific data.

Persistence/degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Ethylene-propylene-(diene) elastomer, EP(D)M	-	-	Not readily

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

Mobility : For data on physical state and solubility see section 9.

13. Disposal considerations

Methods of disposal (waste of residues; contaminated packaging) : Waste must be disposed of in accordance with national and local environmental regulations.

14. Transport information**International transport regulations**

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-	-	-
ADNR Class	Not regulated.	-	-	-	-	-
IMDG Class	Not regulated.	-	-	-	-	-
IATA Class	Not regulated.	-	-	-	-	-

PG* : Packing group

Attention, please read EMS notations like E-S or F-D as E-S or F-D

15. Regulatory information

EU regulations

Risk phrases : According to EU Directives 67/548/EEC and 1999/45/EC this product does not require labelling with symbols and/or R-phrases.

16. Other information

Information

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Notice to reader

The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications.

The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.

None of the materials referenced herein should be used and/or applied in any product, device or material used or for use as human body implant or otherwise within the human body.

Training advice : Before handling this substance/preparation, the personnel involved should be instructed by means of this safety data sheet.

Sources of key data : Literature data and/or investigation reports are available through the manufacturer.

Alterations compared to the previous version : Alterations compared to the previous version are marked with a little (blue) triangle.