

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	: Substance,
EC index no	: Not applicable
EC no	: Not applicable
CAS No	: 9003-29-6
REACH registration No	: exempt
Type of product	: Polymer
Product group	: Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture	: Manufacture of substances
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1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

TKB TRADING, LLC

1101 9th Avenue Oakland, CA 94606

Tel: (510)-922-9027

www.tkbtrading.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type	: Polymer
Name	: Polymer with 2-methyl-1-propene, Copolymer of isobutylene and butene
CAS No	: 9044-17-1, also registered under CAS number 9003-29-6
EC no	: Not applicable
EC index no	: Not applicable

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Polymer with 2-methyl-1-propene	CAS Number 9044-17-1	100	Not classified

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Polymer with 2-methyl-1-propene	CAS Number 9044-17-1	100	Not classified

This product is also registered under CAS number 9003-29-6

Full text of R- and H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to fresh air. In case of irregular breathing or respiratory arrest provide artificial respiration. Seek medical advice.
- First-aid measures after skin contact : In case of contact with cold material: . Wash skin with plenty of water and soap. In case of contact with hot material: . Rinse immediately with plenty of water for 15 minutes. Seek immediate medical advice.
- First-aid measures after eye contact : In case of contact with cold material: . Rinse immediately with plenty of water. In case of contact with hot material: . Rinse immediately with plenty of water for 15 minutes. Seek medical advice.
- First-aid measures after ingestion : Do not induce vomiting. Drain stomach by gastric lavage under qualified medical supervision. Immediately get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : The product decreases available oxygen, causes suffocation.
- Symptoms/injuries after skin contact : Hot material can cause burns.
- Symptoms/injuries after eye contact : Hot material can cause burns.
- Symptoms/injuries after ingestion : Ingestion may cause nausea and vomiting. Central nervous system depression. Convulsions. Death.

4.3. Indication of any immediate medical attention and special treatment needed

In case of burn skin, to minimize physical damage to the skin, do not remove the polybutene. Cover the injured area with appropriate burn gel.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray, dry chemical, foam, carbon dioxide.
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : None known.
- Explosion hazard : None known.
- Reactivity in case of fire : Upon combustion CO and CO₂ are formed.

5.3. Advice for firefighters

- Firefighting instructions : Cool closed containers exposed to fire with water spray.
- Protective equipment for firefighters : In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Wear protective clothing as described in Section 8 of this safety data sheet. Wear suitable protective clothing.
- Emergency procedures : Stop leak if safe to do so. stay away from low ground with wind on your back. Clean up even minor leaks or spills if possible without unnecessary risk.

6.1.2. For emergency responders

- Protective equipment : Wear suitable protective clothing. In case of fire: Wear self-contained breathing apparatus.
- Emergency procedures : Eliminate leaks immediately. stay away from low ground with wind on your back. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Do not discharge into drains or the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Eliminate leaks immediately. Ventilate affected area.
- Methods for cleaning up : Eliminate leaks immediately. apply water mist to increase dispersion rate. Provide adequate ventilation.

6.4. Reference to other sections

refer to section 8. For disposal of residues refer to section 13 : Disposal considerations*.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : product shall only used by fully trained professional users that are knowledgeable on all hazards posed by it. Use only in well-ventilated areas. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes.
- Handling temperature : <= 120 °C Heating is not required or recommended for processing
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practices. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Provide adequate ventilation.
- Storage conditions : Keep container tightly closed. Store in a well-ventilated place. Keep cool. Bulk storage does not require any special measure. If product is held heated above 60°C the use of nitrogen blanket is recommended.
- Incompatible products : Strong acids. Oxidizing agents, strong. Peroxides. Chlorates.
- Incompatible materials : None known.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

- DNEL : No significant hazards.

8.2. Exposure controls

- Appropriate engineering controls : Provide adequate ventilation. Either local exhaust or general room ventilation is usually required. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Personal protective equipment : Gloves. Protective goggles. Protective clothing.



- Hand protection : Wear suitable gloves tested to EN374.
- Eye protection : Wear chemical goggles if material is handled hot. Not required for normal conditions of use. DIN EN 166.
- Skin and body protection : When skin contact is possible, protective clothing including gloves, apron, sleeves, boots, head and face protection must be worn.
- Respiratory protection : In case of inadequate ventilation wear respiratory protection. half-mask with filter according to EN 149.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Clear, colorless liquid.
- Molecular mass Mn : 250 – 6.000 g/mol
- Colour : colourless.
- Odour : No data available
- Odour threshold : No data available
- pH : not applicable
- Relative evaporation rate (butylacetate=1) : not applicable

Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: >100 °C (Polybut X2) >180 °C (Polybut 1800)
Self ignition temperature	: No data available
Decomposition temperature	: > 150 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: Average 0,85 g/cm ³ (water =1)
Solubility	: Water: ≤ 0,1 %
Log Pow	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidizing.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May react with strong acids or strong oxidizing such as chlorates and peroxides.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acid. Strong oxidizing agents.

10.6. Hazardous decomposition products

Heating this product up 260°C may cause rapid depolymerization with production of extremely flammable isobutene vapors. Thermal combustion may release carbon monoxide and dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Butene, polymer with 2-methyl-1-propene (9044-17-1)

LD50 oral rat	> 34000 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
LC50 inhalation rat (mg/l)	> 17 mg/m ³

Skin corrosion/irritation : When applied to the skin of rabbits, scored 0.4 out of a possible total of 8.0, indicating negligible skin irritation potential. Patch test on human volunteers did not show irritating properties
pH: not applicable

Serious eye damage/irritation : This material produces an eye irritation score of 0.7 of a possible total of 110 with complete disappearance of effects in 72 hours (rabbits), indicating negligible eye irritation potential
pH: not applicable

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Butene, polymer with 2-methyl-1-propene (9044-17-1)

LC50 fishes 1	> 1000 mg/l 96 hours (similar material)
EC50 Daphnia 1	> 1000 48 hours (similar material)

12.2. Persistence and degradability

Butene, polymer with 2-methyl-1-propene (9044-17-1)

Persistence and degradability	Product is not easily biodegradable.
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Butene, polymer with 2-methyl-1-propene (9044-17-1)

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects

: This product is not expected to move rapidly on water flows/surface due the high viscosity and very low solubility

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Dispose of contents/container to comply with applicable local, national and international regulations.
Waste disposal recommendations	: Consult the appropriate local waste disposal expert about waste disposal.
Additional information	: Do not cut, grind, drill, weld, reuse or dispose off containers unless adequate precautions are taken against these hazards.

SECTION 14: Transport information

14.1. UN-Number

ADR, AND, IMDG, IATA : Void

14.2. UN proper shipping name

ADR, AND, IMDG, IATA : Void

14.3. Transport hazard class(es)

ADR, AND, IMDG, IATA : Void
Class

14.4. Packing group

ADR, AND, IMDG, IATA : Void

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

UN 'Model Regulation' : Void

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

Other information, restriction and prohibition regulations : Compliance with following regulations: Regulation (EC) 1907/2006 as amended. Regulation (EC) 1272/2008 as amended. Directive 1999/45/EC as amended. Directive 67/548/EEC as amended.

Seveso Information :

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

CSA has not been established

SECTION 16: Other information

Sources of Key data : MSDS. CSR - Chemical Safety Report.

Abbreviations and acronyms : CAS - Chemical Abstracts Service. CLP - Classification, Labelling and Packaging. CSR - Chemical Safety Report. EC - European Community. EEC - European Economic Community. Overland transport (ADR). STEL- Short-Term Exposure Limit . REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals. SDS - Safety Data Sheet . PBT - Persistent, Bioaccumulative and Toxic substance. PEL- Permissible Exposure Level. TLV- Threshold Limit Value. TWA- Time Weighted Average. vPvB - Very Persistent and Very Bioaccumulative. NLP- No Longer Polymer.

Other information : The regulatory information is based on the available information for CAS No. 9044-17-1. This material is equal in composition to CAS 9003-29-6 and as such may be described as CAS 9003-29-6. This material consist more than 50% (w/w) of polymer molecules with more than 3 monomer unit and less than 50% of polymer molecules with the same molecular weight.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product