

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING**PRODUCT NAME: TRIPOR COMPONENT B160**

Chemical name: Polymeric MDI

Identified use: Chemical.

Recommended use: polyurethane component.

Company:

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2. HAZARDS IDENTIFICATION

According to **REGULATION (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures.**

Label elements and precautionary statement:

Pictogram:



Warning



Warning

Signal word: Danger.

Hazard statement:

- H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated inhalative exposure.

Precautionary statements (Prevention):

- P280 Wear protective gloves/protective clothing/eye protection/face protection.
P285 In case of inadequate ventilation wear respiratory protection.

Precautionary statements (Response):

- P302 + P352 IF ON SKIN (on hair): Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Precautionary statements (Storage):

- P403 + P233 Store in a well ventilated place, keep container tightly closed.

Precautionary statements (Disposal):

MSDS Tripor B160

P501 Dispose of contents / container to hazardous or special waste collection point.

Labelling of special preparations (GHS):
Contains isocyanates. See information from supplier.

According to Directive 67/548/EEC or 1999/45/EC

Directive 1999/45/EC (Preparation Directive)

Hazard symbol

Xn Harmful.

R-phrases

R20 Harmful by inhalation.

R36/37/38 Irritating to eyes, respiratory system and skin.

R40 Limited evidence of carcinogenic effect.

R42/43 May cause sensitisation by inhalation and skin contact.

R48/20 Harmful: Danger of serious damage to health by prolonged exposure through inhalation.

S-phrases

S23.3 Do not breathe vapour/spray.

S36/37 Wear suitable protective clothing and gloves.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Hazard determining component for labelling: Polymeric MDI.

Classification of the substance and mixture:

According to Regulation (EC) No 1272/2008 (CLP)

Acute toxicity: Cat. 4 (Inhalation – vapour)

Serious eye damage / eye irritation: Cat. 2

Skin corrosion/irritation: Cat.2

Specific target organ toxicity following single exposure; Cat. 3 (irritating to respiratory system)

Skin sensitiser: Cat. 1

Respiratory sensitiser: Cat. 1

Carcinogenicity: Cat. 2

Specific target organ toxicity following repeated exposure: Cat. 2 (Inhalation - vapour).

According to Directive 67/548/EEC or 1999/45/EC

Possible hazards:

Harmful by inhalation.

Irritating to eyes, respiratory system and skin.

Limited evidence of carcinogenic effect.

May cause sensitisation by inhalation and skin contact.

Harmful: Danger of serious damage to health by prolonged exposure through inhalation.

Other hazards

Assessment PBT / vPvB:

According to Annex XIV of Regulation (EC) No. 1907/2006 concerning Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Polymeric MDI (content (w/w): 100%)

CAS Number: 9016-87-9

4. FIRST-AID MEASURES

Description of first aid measures

Immediately remove contaminated clothing.

If inhaled: Keep patient calm, remove to fresh air, seek medical attention.

On skin contact: After contact with skin, wash immediately with plenty of water. Consult a doctor if skin irritation persists.

On contact with eyes: Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion: Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: tightness in chest, coughing, difficulty breathing.

Hazards: symptoms can appear later.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary oedema.

5. FIRE FIGHTING MEASURES

Extinguishing media: dry powder, carbon dioxide, alcohol-resistant foam, water spray.

Special hazards arising from the substance or mixture

carbon dioxide, carbon monoxide, hydrogen cyanide, nitrogen oxides, isocyanate. The substances / groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Special protective equipment: Wear self-contained breathing apparatus and chemical protective clothing.

Further information: Keep containers cool by spraying with water if exposed to fire.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol.

Environmental precautions

Do not empty into drains. Do not discharge into subsoil / soil

Methods and material for containment and cleaning up

For large amounts: pump off product.

For residues: pick up with absorbent material (eg. sand, sawdust, general-purpose binder). Dispose of absorbed material in accordance with regulations.

Neutralise with a solution of 5 – 10% sodium carbonate, 0.2-2% detergents and 90-95% water.

Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Provide suitable exhaust ventilation at processing machines. Ensure thorough ventilation of stores and work areas. Avoid aerosol formation. When handling heated product, vapours of the product should be ventilated, and respiratory protection used. Wear respiratory protection when spraying. Danger of bursting when sealed gastight. Protect against moisture. Products freshly manufactured from isocyanates can contain incompletely reacted isocyanates and other dangerous substances.

Conditions for safe storage, including any incompatibilities

Keep away from water. Segregate from foods and animal feeds. Segregate from acids and bases.

Suitable materials for containers: carbon steel (iron), high density polyethylene (HDPE), low density polyethylene (LDPE), tin (tinplate), stainless steel 1.4301 (V2A)

Unsuitable materials for containers: paper, board

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Protect against moisture. Formation of CO₂ and build up of pressure possible. Danger of bursting when sealed gastight. Information concerning the compliance to the Packaging (Essential Requirements) Regulations 1998 and their amendments may be obtained from the manufacturer.

Specific end use(s)

For the relevant uses(s) listed in Section 1 the advice mentioned in this section 7 must be observed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

101-68-8: diphenylmethane-4,4'-diisocyanate (MDI)

TWA value 0.02 mg/m³ (EH40 (UK))

Measured as: NCO

STEL value 0.07 mg/m³ (EH40 (UK))

Measured as: NCO

Exposure controls

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour / aerosol release. Combination filter for gases / vapours of organic compounds and solid liquid particles (eg. EN 14387 Type A-P2).

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

Butyl rubber (butyl) – 0.7 coating thickness

Nitrile rubber (NBR) – 0.4mm coating thickness

Chloroprene rubber (CR) – 0.5mm coating thickness

Unsuitable materials

Polyvinylchloride (PVC) – 0.7mm coating thickness

Polyethylene-laminate (PE laminate) – ca. 0.1mm coating thickness

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Safety shoes (e.g. According to EN 20346)

General safety and hygiene measures:

Do not breathe vapour / spray. With products freshly manufactured from isocyanates body protection and chemical resistant protective gloves are recommended. Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work. Take off immediately all contaminated clothing. Hands and / or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid.
Colour:	brown.
Odour:	earthy, musty.
Odour threshold:	not applicable.
pH value:	not applicable
Melting Point:	<10°C.
Boiling Range:	330°C (1013mbar).
Flash Point:	>204°C
Flammability:	not applicable
Ignition Temperature:	>600°C.
Vapour Pressure:	< 0.01 Pa (at 25 °C)
Density:	1.22 g/cm ³ (at 25 °C)
Relative density	1.24 (20°C)
Relative vapour density (air):	8.5 (20°C)
Thermal decomposition	>230°C
Viscosity, dynamic:	90-130 mPa.s. (25°C) (DIN 53018)
Solubility in water:	reacts with water, hydrolyses.
Partitioning coefficient n-octanol/water (log Kow):	not applicable

10. STABILITY AND REACTIVITY

Reactivity

Corrosion of metals: no corrosive effect.

Chemical stability

The product is stable if stored and handled as described/indicated.

Possibility of hazardous reactions

Reacts with water, with formation of carbon dioxide, risk of bursting. Reacts with substances which contain active hydrogen.

Conditions to avoid

Temperature: <15°C

Avoid moisture.

Incompatible materials

Substances to avoid: acids, alcohols, amines, water, alkalines.

Hazardous decomposition products

No hazardous decomposition products if stored and handled as described/indicated.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Assessment of acute toxicity:

Virtually non-toxic after a single ingestion. Virtually non-toxic after a single skin contact. Of moderate toxicity after short-term inhalation.

Experimental/calculated data:

LD50 rat (oral): >10,000 mg/kg.

LC50 rat (by inhalation): approx. 0.493 mg/l 4 h

LD50 rabbit (dermal): > 10,000 mg/kg.

Irritation:

Assessment of irritating effects:

Eye contact causes irritation. Skin contact causes irritation.

Experimental/calculated data:

Skin corrosion/irritation: Irritant.

Serious eye damage /irritation: Irritant.

Respiratory / Skin Sensitisation:

Assessment of sensitisation:

The substance may cause sensitisation of the respiratory tract. Sensitisation after skin contact possible.

Germ cell mutagenicity:

Assessment of mutagenicity:

The substance was mutagenic in various test systems with microorganisms and cell cultures, however these results could not be confirmed in tests with mammals.

Carcinogenicity:

Assessment of carcinogenicity:

Indication of possible carcinogenic effect in animal tests. However the relevance of this result for humans is unclear. The substance was tested in form of respirable aerosols.

Reproductive toxicity:

Assessment of reproduction toxicity:

Repeated inhalative uptake of the substance did not cause damage to reproductive organs.

Developmental toxicity:

Assessment of teratogenicity:

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parent animals.

Experiences in humans:

Experimental/calculated data:

Coughing dyspnea, tightness in the chest, temporary influenzal symptoms; can severely irritate the eyes and respiratory tract depending upon the concentration.

Specific target organ toxicity (single exposure):

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure):

Assessment of repeated dose toxicity:

The substance may cause damage to the lung even after repeated inhalation of low doses, as shown in animal studies.

Aspiration hazard:

No aspiration hazard expected.

12. ECOLOGICAL INFORMATION

Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. No toxic effects occur within the range of solubility.

Toxicity to fish: LC0 (96h) >1,000mg/l, Fish (other)

Aquatic invertebrates: EC0 (24h) >500mg/l, Daphnia (other)

Aquatic plants: EC0 (72h) 1,640mg/l *Scenedemus subspicatus* (OECD Guideline 201)

Persistence and degradability:

Assessment biodegradation and elimination (H₂O):

poorly biodegradable.

Elimination information:

< 10% BOD of the ThOD (28d) (OECD Guideline 302 C) (aerobic, activated sludge). Under test conditions no biodegradation observed.

Bioaccumulative potential:

Assessment bioaccumulation potential:

Significant accumulation in organisms is not to be expected.

Mobility in soil (and other compartments if available):

Assessment transport between environmental compartments:

Adsorption to solid soil phase is not expected.

Results of PBT and vPvB assessment:

According to Annex XIV of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): not fulfilling PBT (persistent/bioaccumulative/toxic) criteria.

Additional information:

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Other ecotoxicological advice:

Do not release untreated into natural waters, do not allow to enter soil, waterways or waste water channels.

13. DISPOSAL CONSIDERATIONS

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

Incinerate in suitable incineration plant, observing local authority regulations.

This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (GB).

Waste key: 07 02 08 other still bottoms and reaction residues.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. TRANSPORT INFORMATION

Land transport

ADR Not classified as a dangerous good under transport regulations.

RID Not classified as a dangerous good under transport regulations.

Inland waterway transport

ADNR Not classified as a dangerous good under transport regulations.

Sea transport

IMDG Not classified as a dangerous good under transport regulations.

Air transport

IATA/ICAO Not classified as a dangerous good under transport regulations.

15. REGULATORY INFORMATION

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

This product is classified under the Chemicals (Hazard Information and Packaging) Regulations, (CHIP) (United Kingdom).

Occupational Asthma (of which exposure to isocyanates can be a cause) is a reportable disease listed in the Reporting of Injuries, Diseases and Dangerous Occurrence Regulations (United Kingdom).

This data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

Diisocyanate processes may have to be registered with the appropriate authority, agency or inspectorate as laid down in the (Environmental Protection) Pollution Prevention Control Regulations for the various parts of the United Kingdom (United Kingdom).

This product is not classified as dangerous for transport according to Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009.

Chemical Safety Assessment

Chemical Safety Assessment not required.

16. OTHER INFORMATION

If you have any queries relating to this MSDS please write to technical@tridentfoams.co.uk

Must only be mixed with the relevant Tripor Component A. Must be kept in original containers and not decanted.

Given thorough and adequate mixing the fully reacted product derived from the proper use of Tripor Components A and B is not considered hazardous. However the reaction develops exothermic heat and the liquid chemical mixture should be handled accordingly.

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.