

DynaSet

Version 1.1

Revision Date 11/27/2017

Print Date 12/04/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : DynaSet™

Manufacturer or supplier's details

Company : Johns Manville
Address : P.O. Box 5108
Denver, CO USA 80127

Telephone : +1 303-978-2000 8:00 a.m.-5:00 p.m. M-F
Emergency telephone number : 1-800-424-9300 (Chemtrec, in English)

Recommended use of the chemical and restrictions on use

Recommended use : Adhesives

Restrictions on use : For professional users only.

Prepared by : productsafety@jm.com

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Skin irritation : Category 2

Eye irritation : Category 2A

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

Carcinogenicity : Category 2

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

Specific target organ toxicity - repeated exposure : Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.

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H351 Suspected of causing cancer.
 H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P285 In case of inadequate ventilation wear respiratory protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P362 Take off contaminated clothing and wash before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.

Disposal:

P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
Hazardous components

| Chemical name | CAS-No. | Concentration (%) |
|--|------------|-------------------|
| asphalt | 8052-42-4 | >= 25 - <= 50 |
| poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1'- | 39420-98-9 | >= 5 - <= 20 |

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| | | |
|---------------------------------|-----------|-----------|
| methylenebis[isocyanatobenzene] | | |
| 4-isocyanatosulphonyltoluene | 4083-64-1 | >= <= 0.5 |

SECTION 4. FIRST AID MEASURES

- General advice : Do not leave the victim unattended.
- If inhaled : Remove to fresh air immediately. Get medical attention immediately.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Keep eye wide open while rinsing.
Protect unharmed eye.
If eye irritation persists, consult a specialist.
- If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.
May cause cancer.
May cause damage to organs through prolonged or repeated exposure.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Foam
Water spray
Dry powder
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon monoxide
nitrogen oxides
isocyanates

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- Further information : Standard procedure for chemical fires.
 Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
 Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
 Keep people away from and upwind of spill/leak.
 Ensure adequate ventilation.
 Use personal protective equipment.
- Environmental precautions : Prevent product from entering drains.
 Prevent further leakage or spillage if safe to do so.
 If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
 Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : For personal protection see section 8.
 Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Keep containers tightly closed in a cool, well-ventilated place.
- Materials to avoid : Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|------------|-----------|--------------------------------|---|-----------|
| asphalt | 8052-42-4 | TWA (Fume, inhalable fraction) | 0.5 mg/m ³ (benzene soluble aerosol) | ACGIH |
| | | C (Fumes) | 5 mg/m ³ | NIOSH REL |

Personal protective equipment

- Respiratory protection : If used and stored as directed, no special protective

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equipment is necessary.
General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

| | |
|--------------------------|---|
| Hand protection | |
| Material | : Nitrile rubber |
| Material | : Chloroprene |
| Remarks | : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). |
| Eye protection | : Safety glasses with side-shields Safety goggles |
| Skin and body protection | : Impervious clothing |
| Hygiene measures | : Handle in accordance with good industrial hygiene and safety practice. Written instructions for handling must be available at the work place. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|----------------------------|
| Appearance | : mastic |
| Colour | : black |
| Odour | : slight, hydrocarbon-like |
| Odour Threshold | : No data available |
| pH | : No data available |
| Melting point/freezing point | : No data available |
| Initial boiling point and boiling range | : No data available |
| Flash point | : 149 °C |
| Evaporation rate | : No data available |

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| | |
|--|----------------------------------|
| Flammability (solid, gas) | : No data available |
| Upper explosion limit | : No data available |
| Lower explosion limit | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density | : No data available |
| Relative density | : No data available |
| Density | : 0.98 g/cm ³ (20 °C) |
| Solubility(ies) | |
| Water solubility | : immiscible |
| Solubility in other solvents | : No data available |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Thermal decomposition | : No data available |
| Viscosity | |
| Viscosity, dynamic | : 65,000 - 90,000 mPa.s |
| Viscosity, kinematic | : No data available |

SECTION 10. STABILITY AND REACTIVITY

| | |
|------------------------------------|--|
| Reactivity | : No dangerous reaction known under conditions of normal use. |
| Chemical stability | : Stable under normal conditions. |
| Possibility of hazardous reactions | : Hazardous polymerisation does not occur. Stable under recommended storage conditions. |
| Conditions to avoid | : Direct sources of heat. Exposure to air. Exposure to moisture |
| Incompatible materials | : Strong oxidizing agents |
| Hazardous decomposition products | : carbon oxides nitrogen oxides Isocyanates Hydrocarbons |

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SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Product:Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method**Acute toxicity****Components:****asphalt:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 0.0944 mg/l
Exposure time: 4.5 h

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Acute toxicity**4-isocyanatosulphonyltoluene:**

Acute oral toxicity : LD50 (Rat): 2,330 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Product:

Assessment: Irritating to skin.

Skin corrosion/irritation**Components:****4-isocyanatosulphonyltoluene:**

Assessment: Irritating to skin.

Serious eye damage/eye irritation**Components:****4-isocyanatosulphonyltoluene:**

Assessment: Irritating to eyes.

Respiratory sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Respiratory or skin sensitisation**Components:****poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro.-omega.-hydroxy-, polymer with 1,1'-methylenebis[isocyanatobenzene]:**

Result: May cause sensitisation by skin contact.

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Result: May cause sensitisation by inhalation.

Respiratory or skin sensitisation**4-isocyanatosulphonyltoluene:**

Result: May cause sensitisation by inhalation.

Carcinogenicity

May cause cancer.

Product:

Carcinogenicity - Assessment : Suspected human carcinogens

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

STOT - single exposure

May cause respiratory irritation.

Product:

Assessment: May cause respiratory irritation.

STOT - single exposure**Components:****4-isocyanatosulphonyltoluene:**

Target Organs: Respiratory Tract

Assessment: May cause respiratory irritation.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Product:

Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

Further information**Product:**

Remarks: No data available

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability**Components:****4-isocyanatosulphonyltoluene:**Biodegradability : Result: Readily biodegradable.
Biodegradation: 100 %**Bioaccumulative potential****Components:****4-isocyanatosulphonyltoluene:**Partition coefficient: n- : log Pow: 0.6
octanol/water**Mobility in soil**

No data available

Other adverse effects**Product:**Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82
Protection of Stratospheric Ozone - CAA Section 602 Class I
Substances
Remarks: This product neither contains, nor was
manufactured with a Class I or Class II ODS as defined by the
U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A +
B).Additional ecological : No data available
information**Components:****asphalt:**Additional ecological : No data available
information**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Disposal of residual product : In accordance with local and national regulations.

Contaminated packaging : Empty containers should be taken to an approved waste
handling site for recycling or disposal.
Packaging that cannot be reused after cleaning must be
disposed or recycled in accordance with all federal, national

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and local regulations.

SECTION 14. TRANSPORT INFORMATION**International transport regulations**

These products are not classified as dangerous goods according to international transport regulations.

SECTION 15. REGULATORY INFORMATION**TSCA list**

TSCA - 5(a) Significant New Use Rule List of Chemicals : No substances are subject to a Significant New Use Rule.

U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D) : No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard**SARA 302** : This material does not contain any components with a section 302 EHS TPQ.**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

asphalt

8052-42-4

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

asphalt

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poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro.-omega.-
hydroxy-, polymer with 1,1'-methylenebis[isocyanatobenzene] 39420-98-9

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

WARNING! This product contains a chemical known to the State of California to cause cancer.

| | |
|--------------------------|----------|
| benz[a]anthracene | 56-55-3 |
| benzo[a]pyrene | 50-32-8 |
| benzo[j]fluoranthene | 205-82-3 |
| benz[e]acephenanthrylene | 205-99-2 |
| benzo[k]fluoranthene | 207-08-9 |
| chrysene | 218-01-9 |
| dibenz[a,h]anthracene | 53-70-3 |
| indeno[1,2,3-cd]pyrene | 193-39-5 |
| naphthalene | 91-20-3 |

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

TSCA : On TSCA Inventory

SECTION 16. OTHER INFORMATION**Further information**

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.