

Medium Curing Cutback

SECTION 1. IDENTIFICATION

Product Identifier Medium Curing Cutback
Other Means of Identification (i) MC-30, MC-70, MC-250, MC-800, MC-3000; HFC (+), UPM (+)
Recommended Use Road Asphalt/Damp-proofing.
Restrictions on Use None known.
Manufacturer/Supplier Identifier McAsphalt Industries Ltd, 8800 Sheppard Ave East, Toronto, Ontario, M1B 5R4
Emergency Phone No. CANUTEC, (613) 996 - 6666, 24 hours
 McAsphalt Industries Ltd., 1 - (800) - 268 - 4238, 8AM-5PM Monday to Friday
SDS No. 0146

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).

Classification

Flammable liquid - Category 4; Acute toxicity (Inhalation) - Category 4; Skin irritation - Category 3; Eye irritation - Category 2B; Carcinogenicity - Category 2

Label Elements



Warning
 Harmful if swallowed, in contact with skin or if inhaled.
 IF exposed or concerned: Get medical advice/attention.

Other Hazards

Dark Black. Characteristic asphaltic odour or "rotten egg" odour if H₂S is present, but odour is an unreliable warning since it may deaden the sense of smell. Electrostatic discharges may cause fire. May cause moderate or severe eye/skin irritation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | % | Other Identifiers | Other Names |
|------------------------|-----------|-------|-------------------|-------------|
| Asphalt (Bitumen) fume | 8052-42-4 | 40-70 | | |
| Stoddard solvent | 8052-41-3 | 15-50 | | |

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Call a Poison Centre or doctor if you feel unwell. If skin irritation occurs, get medical advice or attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

If a contact lens is present, DO NOT delay flushing or attempt to remove the lens. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Get medical attention immediately.

Ingestion

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately. Call a Poison Centre or doctor if you feel unwell.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can irritate the nose and throat. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

If in eyes: symptoms include sore, red eyes, and tearing.

If swallowed: can irritate the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

If on skin: repeated or prolonged exposure can irritate or burn the skin.

Immediate Medical Attention and Special Treatment

Target Organs

Skin: can cause irritation, dermatitis. Skin defatting with chronic exposure.

Special Instructions

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Medical Conditions Aggravated by Exposure

Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated skin exposure can produce local skin destruction or dermatitis.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam.

Unsuitable Extinguishing Media

Do not spray water onto burning product as this may cause spattering and spreading of the flame.

Specific Hazards Arising from the Product

Combustible liquid. Can ignite if heated. Releases vapour that can form explosive mixture with air at or above the flash point. See Section 9 (Physical and Chemical Properties) for flash point and explosive limits.

This material is sensitive to static discharge at temperatures above the flash point.

Carbon oxides (CO, CO₂), smoke and irritating vapours as products of incomplete combustion. Hydrogen sulphide, smoke, fume, aldehydes, sulphur oxides, incomplete combustion products, oxides of carbon.

Special Protective Equipment and Precautions for Fire-fighters

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Monitor area for flammable or explosive atmosphere.

Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Minimize the use of water to prevent environmental contamination. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react with spilled product. Do NOT use combustible materials such as sawdust. Cover the spill surface with the appropriate type of foam to reduce the release of vapour. Place used absorbent into suitable, covered, labelled containers for disposal. Contaminated absorbent poses the same hazard as the spilled product. Large spills or leaks: dike spilled product to prevent runoff. Knock down gas with fog or fine water spray. Knock down vapour with fog or fine water spray. Do not direct water at spill or source. Remove or recover liquid using pumps or vacuum equipment. Flush spill area. Dike and recover contaminated water for appropriate disposal. Use water fog or spray curtain to reduce amount of dust in air. Get expert advice before treating the spilled product with other chemicals to make it less hazardous. Store recovered product in suitable containers that are: covered, tightly-covered. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information

Report spills to local health, safety and environmental authorities, as required. Contact supplier, local fire and emergency services for help. Do not use combustible absorbents, such as sawdust.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Only use where there is adequate ventilation. Avoid generating vapours or mists. Avoid generating dusts. Prevent uncontrolled release of product. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). In the event of a spill or leak, exit the area immediately. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Do not use near welding operations or other high energy sources. Avoid heating that will increase the amount of vapours. Do not weld, cut or perform hot work on empty container until all traces of product have been removed. Good housekeeping is extremely important. Prevent dust accumulation on ALL surfaces including ceiling rafters and other hidden surfaces. Do not use compressed air to clean equipment, clothing or spills. Electrically bond and ground equipment. Ground clips must contact bare metal. Increase conductivity by reducing flow rate in transfer operations and/or handle at lower temperature. Prevent accidental contact with incompatible chemicals. Wear personal protective equipment to avoid direct contact with this chemical. Avoid shock, friction or impact. Do not skid, drag or drop containers. Do not chip or grind lumps. During storage, transit and cooling of asphalt, solvent vapour and hydrogen sulphide may accumulate in enclosed spaces such as tank cars. Open tank car hatches with caution. Maintain same precautions when gauging and sampling.

Conditions for Safe Storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials(see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Engineering controls are usually required in the storage area to protect against the product's hazard(s). Review Section 8 (Exposure Controls/Personal Protection) for information. See advice on temperature in Conditions to Avoid in Section 10 (Stability and Reactivity) to determine suitable storage temperature. Electrically bond and ground containers. Ground clips must contact bare metal. Avoid bulk storage indoors. Do not handle swollen drums. Get expert advice. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet. Comply with all applicable health and safety regulations, fire and building codes.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Chemical Name | ACGIH TLV® | | OSHA PEL | | AIHA WEEL | |
|------------------------|-------------------------------------|------|-----------------|---------|-----------|-----|
| | TWA | STEL | TWA | Ceiling | 8-hr TWA | TWA |
| Asphalt (Bitumen) fume | 0.5 mg/m ³ (l) A4 BEI | | Not established | | | |
| Stoddard solvent | 100 ppm | | 100 ppm | | | |

Appropriate Engineering Controls

Use only with adequate ventilation. Exhaust ventilation/engineering controls need to keep vapour and gas concentrations below recommended limits and below any lower explosive limits.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: nitrile rubber.

Respiratory Protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: organic vapour filter cartridge or canister with a dust, fume or mist filter (R, or P series) may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

| | |
|--|---|
| Appearance | Dark black. |
| Odour | Characteristic asphaltic odour or "rotten egg" odour if H ₂ S present, but odour is an unreliable warning, since it may deaden the sense of smell. |
| Odour Threshold | Not available |
| pH | Not available |
| Melting Point/Freezing Point | Not available (melting); Not applicable (freezing) |
| Initial Boiling Point/Range | 149.0 - 204.5 °C (300.2 - 400.1 °F) |
| Flash Point | > 69 °C (156 °F) (method not specified) |
| Evaporation Rate | Not available |
| Flammability (solid, gas) | Not applicable |
| Upper/Lower Flammability or Explosive Limit | 6.5% (upper); 0.7% (lower) |
| Vapour Pressure | 0.53 - 0.60 kPa at 25 °C (77 °F) |
| Vapour Density (air = 1) | 5 |
| Relative Density (water = 1) | 0.938 |
| Solubility | Insoluble in water |
| Partition Coefficient, n-Octanol/Water (Log K_{ow}) | Not available |
| Auto-ignition Temperature | Not available |
| Decomposition Temperature | Not applicable |
| Viscosity | Not available (kinematic) |

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Other Information

| | |
|----------------|---------------|
| Physical State | Liquid |
| Bulk Density | Not available |

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Stable under normal storage conditions.

Possibility of Hazardous Reactions

Hazardous polymerizations does not occur.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources. Incompatible materials. Exposure to heat.

Incompatible Materials

Acides. Bases. Oxidizers.

Hazardous Decomposition Products

Not available.

SECTION 11. TOXICOLOGICAL INFORMATION

The following toxicological assessment is based on knowledge of the toxicity of the product's components.

Likely Routes of Exposure

Eye contact; inhalation; ingestion; skin absorption.

Acute Toxicity

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|------------------------|------------------------------------|--------------------|-----------------------|
| Asphalt (Bitumen) fume | | > 5000 mg/kg (rat) | > 2000 mg/kg (rabbit) |
| Stoddard solvent | > 1300 ppm (rat) (4-hour exposure) | > 5000 mg/kg (rat) | > 3000 mg/kg (rabbit) |

Skin Corrosion/Irritation

Irritating to skin. Signs/symptoms may include localized redness, swelling, and itching. Hot liquid product may cause serious thermal burns on direct contact. Asphalt fumes can increase susceptibility to sunburn.

Contact may cause irritation to the skin and mucous membranes upon prolonged and / or repeated skin contact. Prolonged or repeated contact to petroleum oil with skin may cause defatting of skin leading to redness, itching, inflammation, cracking, dermatitis (rash).

Serious Eye Damage/Irritation

Irritating to eyes. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Hot liquid product may cause serious thermal burns on direct contact. Hydrogen sulphide may cause eye irritation at 1 - 20 ppm and acute conjunctivitis at higher concentrations. Above 50 ppm H₂S, eye irritation may include symptoms of redness, sever swelling, tearing, sensitivity to light and the appearance of 'Halos' around lights.

EYE IRRITANT. Symptoms include sore, red eyes, and tearing. Hot liquid product may cause thermal burns.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May be harmful based on limited evidence.

May cause irritation to the respiratory system.

Can irritate the nose and throat. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Skin Absorption

May be harmful based on limited evidence.

Harmful if absorbed through the skin.

Ingestion

May be harmful based on limited evidence.

Low order of acute toxicity. May cause nausea, vomiting and diarrhea.

Can irritate the mouth, throat and stomach. Permanent damage can result. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Harmful based on limited evidence.

effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above. May cause irritation of the respiratory system. May cause respiratory tract injury, areas of skin to darken.

Although the material in general is not considered to have chronic effects, it may contain benzene, a listed carcinogen. Refer to Section 11 of the MSDS for more detailed information.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

| Chemical Name | IARC | ACGIH® | NTP | OSHA |
|------------------------|----------|--------|-----|------|
| Asphalt (Bitumen) fume | Group 2B | A4 | | |

Group 2B – Possibly carcinogenic to humans. 8052-42-4 Group 2B - Possibly carcinogenic to humans. Occupational exposure to straight-run bitumens and their fume condensate during road paving.

An IARC working group has concluded that occupational exposures to straight-run bitumens and their emissions during road paving are 'possibly carcinogenic to humans' (Group 2B).

Key to Abbreviations

IARC has reviewed the carcinogenicity of petroleum solvents (including Stoddard solvent in a sub-group of white spirits). IARC concluded that petroleum solvents are not classifiable as to their carcinogenicity to humans. (.

Reproductive Toxicity

Development of Offspring

No information was located.

No known significant effects or critical hazards.

Sexual Function and Fertility

Does not cause effects on sexual function or fertility.

Not known to be a reproductive hazard.

Effects on or via Lactation

Not known to cause effects on or via lactation.

Germ Cell Mutagenicity

No information was located.

The material in general is not expected to produce mutagenic effects.

Interactive Effects

No information was located.

Not available

SECTION 12. ECOLOGICAL INFORMATION

Environmental affects: No known significant effects or critical hazards. Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable under Federal and Provincial regulations.

Ecotoxicity

Marine Pollutant.

Persistence and Degradability

No information was located.

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Bioaccumulative Potential

No information was located.

Mobility in Soil

Studies are not available.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal Methods**

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. Recycle and reuse product, if possible. The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user. This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water. The container for this product can present explosion or fire hazards, even when emptied. Do not cut, puncture, or weld on or near this container. Do not reuse empty containers. Dispose of or recycle empty containers through an approved waste management facility. Store product for disposal as described under Storage in Section 7 of this safety data sheet.

SECTION 14. TRANSPORT INFORMATION

| Regulation | UN No. | Proper Shipping Name | Transport Hazard Class(es) | Packing Group |
|--------------|--------|---|----------------------------|---------------|
| Canadian TDG | 3256 | Medium Curing Cutback (Elevated Temperature Liquid, flammable, N.O.S., with flashpoint above 60.5 c, at or above its flash point) | 3 | III |
| US DOT | 3256 | Medium Curing Cutback (Elevated Temperature Liquid, flammable, N.O.S., with flash pint above 37.8 c, at or above its flash point) | 3 | III |

Environmental Hazards Potential Marine Pollutant (Stoddard solvent)

Special Precautions Please note: PG* : Packing group

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Other Information Canadian TDG Information: Not regulated as a dangerous good unless this product is shipped at a temperature above the flash point, OR when product is shipped at a temperature above 100 degree Celsius but lower than the flash point.

SECTION 15. REGULATORY INFORMATION**Safety, Health and Environmental Regulations****Canada****Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

All ingredients are listed on the DSL or are not required to be listed. The componets of this product are in compliance with the chemical notification requirements of the NSN Regulation under CEPA, 1999.

USA**Toxic Substances Control Act (TSCA) Section 8(b)**

The components of this product are in compliance with the chemical notification requirements of TSCA.

Additional USA Regulatory Lists

SARA Title III - Section 302: Not listed SARA Title III - Section 304 EHS RQ (lbs.) Not listed SARA Title III - Section 313: Not listed CERCLA: Not listed RCRA CODE Not listed CAA 112(r) TQ (lbs.) Not listed.

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SECTION 16. OTHER INFORMATION

| | |
|------------------------------|--|
| NFPA Rating | Health - 2 Flammability - 2 Instability - 1 Based on Stoddard solvent |
| SDS Prepared By | EPC & Risk Management Department |
| Phone No. | 1 (416) 281 - 8181 |
| Date of Preparation | January 23, 2018 |
| Date of Last Revision | January 23, 2018 |
| Key to Abbreviations | ACGIH® = American Conference of Governmental Industrial Hygienists AIHA® = AIHA® Guideline Foundation HSDB® = Hazardous Substances Data Bank IARC = International Agency for Research on Cancer NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health NTP = National Toxicology Program OSHA = US Occupational Safety and Health Administration RTECS® = Registry of Toxic Effects of Chemical Substances |
| References | CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS). |
| Disclaimer | To the best of our knowledge, the information herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. |

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