

Rapid Curing Cutback

SECTION 1. IDENTIFICATION

Product Identifier Rapid Curing Cutback

Other Means of RC-30, RC-70, RC-250, RC-800, RC-3000

Identification

Recommended Use Road Asphalt/Damp-proofing.

Restrictions on Use None known.

Manufacturer/Supplier McAsphalt Industries Ltd, 8800 Sheppard Ave East, Toronto, Ontario, M1B 5R4

Identifier

Emergency Phone No. CANUTEC, (613) 996 - 6666, 24 hours

McAsphalt Industries Ltd., 1 - (800) - 268 - 4238, 8AM-5PM Monday to Friday

SDS No. 0147

SECTION 2. HAZARD IDENTIFICATION

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

Classification

Flammable liquid - Category 1; Acute toxicity (Inhalation) - Category 4; Skin irritation - Category 3; Eye irritation - Category 2B; Carcinogenicity - Category 2

Label Elements







Danger

Extremely flammable liquid and vapour.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Take action to prevent static discharges.

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. Product may release vapours which can form explosive mixture with air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Asphalt (Bitumen) fume	8052-42-4	60 -100		

Product Identifier: Rapid Curing Cutback - Ver. 1 SDS No.: 0147

Date of Preparation: January 23, 2018

Date of Last Revision: January 23, 2018 Page 01 of 08

Naphtha (petroleum), hydrotreated	64742-48-9	10 - 40	
heavy			
SULFUR	7704-34-9	<1	
POLYCYCLIC AROMATIC HYDROCARBONS	130498-29-2	<0.1	

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 personnnel. Loosen tight clothing such as collar, tie, belt or waist band. Get medical attention immediately.

Skin Contact

Exposure to this material can be controlled in many ways. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. This general information can be used to help develop specific control measures. Ensure that control systems are properly designed and maintained. Comply with occupational, environmental, fire, and other applicable regulations in case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleaner. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

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 unconcious person. Get medical attention immediately. Call a Poison Centre or doctor if you feel unwell.

Most Important Symptoms and Effects, Acute and Delayed

Inhalation of this product may cause respiratory tract irritation and Central Nervous System (CNS) Depression, symptoms of which may include' weakness, dizziness, slurred speech, drowsiness, unconciosness and in cases of severe overexposure; coma and death. At higher concentrations (above 10 ppm), hydrgen sulphide is extremely toxic by inhalation, may cause respiratory-tract irritation and respiratory failure, coma and death. Pulmonary edema can occur up to 24 hours after hydrogen sulphide exposure. While hydrogen sulphide emits a strong odour of rotten eggs, detection by smell is not sufficient as a warning property for exposure to this substance, as it may deaden the sense of smell quickly.

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

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

Immediate Medical Attention and Special Treatment

Target Organs

Skin: can cause irritation, dermatitis. Skin defatting with chronic exposure. Eyes: can cause eye irritation and conjunctivitis.

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 see toxicological information (Section11).

Product Identifier: Rapid Curing Cutback - Ver. 1 SDS No.: 0147

Date of Preparation: January 23, 2018

Date of Last Revision: January 23, 2018 Page 02 of 08

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam.

Specific Hazards Arising from the Product

Flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with air. Can be ignited by static discharge. 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 Cool tanks, shells and containers exposed to fire and excessive hear with water. Use extreme caution.

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

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. Do not direct water at spill or source. Dike and recover contaminated water for appropriate disposal. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Only use where there is adequate ventilation. Avoid generating vapours or mists. Prevent uncontrolled release of product. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Avoid heating that will increase the amount of vapours. 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 repeated or prolonged skin contact with product or with contaminated equipment/surfaces. Avoid shock, friction or impact. Do not skid, drag or drop containers. During storage, transit and cooling of asphalt, solvent vapour and hydrgen sulphide may accumulate in enclosed spaces such as tank cars. Open tank car hatches with caution. Maintain same precautions when guaging and sampling.

Do NOT smoke in work areas. Do NOT eat, drink or store food in work areas. Remove contaminated clothing and protective equipment before entering eating areas or leaving work area. Consider using a double locker-shower facility. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Keep

Product Identifier: Rapid Curing Cutback - Ver. 1 SDS No.: 0147

Date of Preparation: January 23, 2018

Date of Last Revision: January 23, 2018 Page 03 of 08

contaminated clothing in closed containers. Properly dispose of any contaminated items, including shoes, that cannot be decontaminated. DO NOT re-use. See Section 13 (Disposal Considerations) of this safety data sheet.

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 unlablled 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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Asphalt (Bitumen) fume	0.5 mg/m3 (I) A4 BEI		Not established			
SULFUR	1 ppm	5 ppm				

Appropriate Engineering Controls

If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. 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.

Chemical-resistant, imperious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary, 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 Oily

Odour Threshold Not available pH Not available

Melting Point/Freezing Point Not available (melting); Not applicable (freezing)

Initial Boiling Point/Range > 80 °C (176 °F)

Flash Point -9 °C (16 °F) (closed cup) (Naphtha (petroleum), hydrotreated heavy)

Product Identifier: Rapid Curing Cutback - Ver. 1 SDS No.: 0147

Date of Preparation: January 23, 2018

Date of Last Revision: January 23, 2018 Page 04 of 08

Evaporation Rate Not available Flammability (solid, gas) Not applicable

Upper/Lower Flammability or

Explosive Limit

6% (upper); 0.8% (lower)

Vapour Pressure 0.1 - 0.3 kPa (0.8 - 2.3 mm Hg) at 20 °C

Vapour Density (air = 1) Not available

Relative Density (water = 1) 0.938 - 1.000 at 15 °C
Solubility Insoluble in water
Partition Coefficient, Not available

n-Octanol/Water (Log Kow)

Auto-ignition TemperatureNot availableDecomposition TemperatureNot available

Viscosity Not available (kinematic)

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

Information presented below is for the entire product, unless otherwise specified. The following toxicological assessment is based on knowledge of the toxicity of the product's components.

Likely Routes of Exposure

Eye contact; skin 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)
Naphtha (petroleum), hydrotreated heavy	Not available	Not available	Not available
SULFUR	~ 444 ppm (rat) (4-hour exposure) (gas)		
POLYCYCLIC AROMATIC HYDROCARBONS	Not available	Not available	Not available

Product Identifier: Rapid Curing Cutback - Ver. 1

Date of Preparation: January 23, 2018

Date of Last Revision: January 23, 2018 Page 05 of 08

SDS No.: 0147

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.

SKIN IRRITANT. Slightly irritating to the skin. Contact with hot material can cause thermal burns.

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 appearence 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

No information was located.

May cause nose and throat irritation. (Asphalt (Bitumen) fume). (Naphtha (petroleum), hydrotreated heavy). (Benzene) 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.

Ingestion

Harmful based on limited evidence.

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

Harmful. At ambient temperature there is no significant adverse effect expected. Irritation of mouth, throat, or gastrointestinal tract may occur.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause irritation of the respiratory system. Respiratory tract injury has been observed, areas of skin to darken. Not harmful. No known significant effects or critical hazards.

Respiratory and/or Skin Sensitization

May cause an allergic reaction (skin sensitization) based on limited evidence. It may irritate the respiratory system.

Carcinogenicity

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

8052-42-4 Group 2B - Possibly carcinogenic to humans. Occupational exposure to straight-run bitumens and their fume condensates 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

Occupational exposure to hard bitumens and their emissions during mastic asphalt work.

Reproductive Toxicity

Development of Offspring

No information was located.

No known significant effects or critical hazards.

Sexual Function and Fertility

Material in general is not expected to cause harm.

No known significant effects or critical hazards.

Effects on or via Lactation

Not known to cause effects on or via lactation.

Product Identifier: Rapid Curing Cutback - Ver. 1 SDS No.: 0147

Date of Preparation: January 23, 2018

Date of Last Revision: January 23, 2018 Page 06 of 08

Germ Cell Mutagenicity

Material in general is not expected to cause harm.

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

Interactive Effects

Not available.

SECTION 12. ECOLOGICAL INFORMATION

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.

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. 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.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1999	Rapid Curing Cutback (Tars, Liquid, including road asphalt and oils, bitumen and cutbacks)	3	II
US DOT	1999	Rapid Curing Cutback (Tars, Liquid, including road asphalt and oils, bitumen and cutbacks)	3	II

Special Precautions Please note: PG* : Packing group

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

Not applicable

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/NDSL. The componets of this product are in compliance with the chemical notification requirements of the NSN Regulation under CEPA, 1999.

SDS No.: 0147

USA

Product Identifier: Rapid Curing Cutback - Ver. 1

Date of Preparation: January 23, 2018

Date of Last Revision: January 23, 2018 Page 07 of 08

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.

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 2 Flammability - 3 Instability - 2

> Based on Naphtha (petroleum), hydrotreated heavy

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

CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). References

> 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.

SDS No.: 0147

Product Identifier: Rapid Curing Cutback - Ver. 1

Date of Preparation: January 23, 2018

Date of Last Revision: Page January 23, 2018 08 of 80

