WATANIYA
BITUMEN AND OIL REFINERY

MATERIAL SAFETY DATA SHEET

CUTBACK

SECTION 1: PRODUCT AND COMPANY CREDENTIALS

Product Name	**Asphalt CUTBACK MC30, MC70, MC250, MC500, MC800, MC 3000**
Product Use	**Asphalt MC Cutbacks are used in a wide variety of paving, roofing, and industrial applications. These cutbacks are sometimes heated before use.**
Synonym	**Petroleum Hydrocarbon; Medium curing cutback bitumen; Medium curing road oil.**
Standard	**ASTM D946**
Company Identification	**Wataniya Group**
Address	**Head Office: Salim Street - Sulaymaniyah/Iraq**
Website	**www.wataniyagroup.com**
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SECTION 2: PRODUCT INFORMATION/COMPOSITION

Amount	Cas Number	Components
50 - 90 %weight	**64742-93-4**	**Bitumen Viscosity Grade (VG)**
20 – 50 % weight	**64742-48-9**	**Superior Kerosene Oil (SKO)**

Section 3: HAZARDS IDENTIFICATION

Emergency Overview	- Flammable Liquids and vapor. - Combustible Liquid - Ensure adequate Ventilation. Harmful if inhaled any may cause delayed lung or nervous system depression. - Heated Asphalts can cause thermal burns. - Heating may release highly toxic and flammable hydrogen sulfide gas (H_2S) - Keep away from open flames. - Prolonged/repeated contact with asphalt may cause skin irritation or dermatitis. - Do not attempt rescue without supplied – Air respiratory protection
Immediate Health Effects	**Eye:** Not expected to cause prolonged or significant eye irritation. If this material is not expected to cause prolonged or significant eye irritation. If this material is heated, thermal burns may result from eye contact. **Skin**: Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. If this material is heated, thermal burns may result from skin contact. **Ingestion**: Not expected to be harmful if swallowed. **Inhalation**: The vapor or fumes from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing. Hydrogen sulfide has a strong rotten-egg odor. However, with continued exposure and at high levels, H2S may deaden a person's sense of smell. If the rotten egg odor is no longer noticeable, it may not necessarily mean that exposure has stopped. At low levels, hydrogen sulfide causes irritation of the eyes, nose, and throat. Moderate levels can cause headache, dizziness, nausea, and vomiting, as well as coughing and difficulty breathing. Higher levels can cause shock, convulsions, coma, and death. After a serious exposure, symptoms usually begin immediately. The U.S. National Institute for Occupational Safety and Health (NIOSH) considers air concentrations of hydrogen sulfide gas greater than 100 ppm to be Immediately Dangerous to Life and Health (IDLH).
Delayed or Other Health Effects	**Cancer:** May cause cancer in laboratory animals, but the available information is inadequate to determine if this material can cause cancer in humans.

SECTION 4: FIRST AID MEASURES

General Information:
DO NOT DELAY. Obtain immediate medical treatment.

First Aid Instructions:
Eye: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

Skin: If on skin (or hair): Get immediate medical advice/attention. Remove nonadherent contaminated clothing. Cool adherent materials and burned areas with ice and/or cold water. Do not remove adherent material or clothing. Do not use solvents to remove asphalt from the skin. Acute and delayed symptoms and effects: Causes skin irritation. 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.

Ingestion: If swallowed: Rinse mouth. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Acute and delayed symptoms and effects: Hot product may cause thermal burns. Causes burns to nose, mouth, throat, and digestive tract. Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea, blood in the feces and/or vomitus may also be seen. If swallowed in large quantities, Asphalt can obstruct the intestine.

Inhalation: If inhaled: Call a poison center or doctor if you feel unwell. Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Excessive inhalation may cause headache, dizziness, confusion, loss of appetite and/or loss of consciousness.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible). No attempt should be made to remove firmly adhering bitumen from the skin. Once the bitumen has cooled, it will do no further harm and in fact provides a sterile covering over a burnt area. As healing takes place, the bitumen plaque will detach itself, usually after a few days. If solvent treatment is used, it should be followed by washing with soap and water, then the application of a proprietary re fatting agent or skin cleansing cream. Only medically approved solvents may be used to remove bitumen from burns, as other solvents could cause further skin damage.

Note to Physicians: Administration of 100% oxygen and supportive care is the preferred treatment for poisoning by hydrogen sulfide gas. For additional information on H2S, see Chevron MSDS No. 301.

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties:
Flashpoint: 65 °C - 204 °C (150 °F - 400 °F)

Auto ignition: 354 °C (490 °F)

Flammability (Explosive) Limits (% by volume in air): Lower: 0.3% Upper: 5%

Suitable Extinguishing Media: Use water fog, foam, dry chemical, or carbon dioxide (CO2) to extinguish flames.

SECTION 6: PROTECTION OF FIRE FIGHTERS

Fire Fighting Instructions: Fire and explosion hazards are moderate when this product is exposed to heat or flame. Aromatic hydrocarbon vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Hot asphalt may ignite flammable materials on contact.

Combustion Products: Primary combustion products are carbon monoxide, carbon dioxide and water. Combustion products may include sulfur oxides and hydrogen sulfide. Other undetermined compounds could be released in small quantities.

ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.
Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing.

Precautions in Exposure Controls/Personal Protection
This material will settle out of the air. This material will float and disperse with wind and current. Contain the material with booms and pick up with absorbents or adsorbent materials or remove with a vacuum truck.

Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. If heated material is spilled, allow it to cool before proceeding with disposal methods.

Reporting: Report spills to local authorities as appropriate or required.

SECTION 7: HANDLING AND STORAGE

Precautionary Measures: Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors, fumes, or mists of this product. Keep this product from heat, sparks, or open flame. Use this product with adequate ventilation. Wash thoroughly after handling. Hydrogen sulfide, an extremely flammable, colorless, highly toxic gas, is emitted from heated asphalt and may accumulate in storage tanks and bulk transport containers. Prolonged breathing (greater than 1 hour) of concentrations of hydrogen sulfide around 50 ppm can produce eye and respiratory tract (mouth, nose, and throat) irritation, and at high concentrations (around 300 ppm) is considered immediately dangerous to life and health.

Unusual Handling Hazards: Since the sense of smell becomes rapidly insensitive to hydrogen sulfide, its odor cannot be relied upon as an indicator of its concentration. Always use caution when working around closed bulk containers of asphalt. Use ventilation or work upwind from source of fumes or vapors. Use supplied air respirators or self-contained breathing apparatus if the PEL or TLV for hydrogen sulfide (10 ppm, 8hr TWA) is exceeded.

General Handling Information: Consult supervisor for special handling instructions. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Wash hands before breaks and immediately after handling the product. Provide eyewash station and safety shower. Handle in accordance with good industrial hygiene and safety practice.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioned or disposed of properly.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

General Considerations:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Engineering Controls:
Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Personal Protective Equipment:
Eye/Face Protection: Wear safety glasses. If splash potential exists, wear full face shield or chemical goggles.

Skin Protection: Wear protective gloves. Nitrile or Viton gloves are recommended. DO NOT USE NATURAL RUBBER or PVC (polyvinyl chloride). If product is hot, thermally protective gloves are recommended. Consult manufacturer specifications for further information.

Respiratory Protection: Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapors, Dusts and Mists. If material is heated and emits hydrogen sulfide, determine if airborne concentrations are below the occupational exposure limit for hydrogen sulfide. If not, wear an approved positive pressure air-supplying respirator. For more information on hydrogen sulfide, see Chevron MSDS No. 301.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Notation	Ceiling	STEL	TWA	Country/Agency	Component
--	--	--	.5 mg/m3	ACGIH	Asphalt
--	--	--	0.7 to 5 mg/m3	ACGIH, A2	Kerosene

The ACGIH TLV is 0.5 mg/m3 as the benzene extractable portion of the inhalable fraction of asphalt fume. The TLV may also be determined by unspecified 'equivalent' methods. Consult local authorities for appropriate values.

ACGIH: A2; Exposure by all routes should be carefully controlled to levels as low as possible (2009); For Mineral oil, excluding metal working fluids; Poorly and mildly refined.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color:	Black	**Boiling Point:**	> 169 °C (336.2 °F) (1 atm)
Physical State:	Liquid (Viscoelastic Material)	**Solubility:**	Insoluble in water
Odor:	Petroleum odor	**Melting Point**	No Data Available
PH:	Not Applicable	**Specific Gravity:**	0.918 – 0.926 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)
Vapor Pressure:	1.6 mg Hg@ 68 F (200C)	**Viscosity:**	from 30, 70, 250, 500, 800, 3000 cSt at 60 °C (140 °F) (approx. respectively)
Vapor Density (Air = 1):	4.5 at 20 °C (68 °F) (approx.)		

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility with Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: Oxides of carbon. Oxides of Sulphur. Oxides of nitrogen. Hydrogen sulphide.

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Immediate Health Effects
Eye Irritation: May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Hot liquid product may cause serious thermal burns on direct contact.

Skin Irritation: Causes skin irritation. 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 Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials or product components.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

Additional Toxicology Information:
There is concern about the carcinogenicity of chemical compounds found in asphalts. The International Agency for Research on Cancer (IARC) reviewed the carcinogenic potential of asphalts in 1985 and again in 1987. At that time, they concluded there was inadequate evidence to decide that asphalts were carcinogenic to humans. Overall, findings from health monitoring studies of asphalt workers are not conclusive. However, asphalt fume condensates and certain chemical components of asphalt fume have been shown to cause cancer in mice when repeatedly applied to the skin and allowed to remain on the skin for a prolonged period. In addition, asphalt fume condensates have been shown to be weakly positive in Ames mutagenicity tests. Skin contact and breathing of fumes, mists and vapors should be reduced to a minimum.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:
This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.

Environmental Fate
Ready Biodegradability: This material is not expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

SECTION 13: DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

SECTION 14: TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: UN 1999 & UN 3256, ELEVATED TEMPERATURE LIQUID, N.O.S. (ASPHALT, CUTBACK), 3, III

IMO/IMDG Shipping Description: UN 1999 & 3256 ELEVATED TEMPERATURE LIQUID, N.O.S. (ASPHALT, CUTBACK), 3, III

ICAO/IATA Shipping Description: FORBIDDEN IF OFFERED AT TEMPERATURES EQUAL TO OR EXCEEDING 100 C.

Note: Cutback MC 30 & MC 70 is on UN No: UN 1999
The cutback Mc 250, MC 800, MC 3000 is on UN 3256

SECTION 15: REGULATORY INFORMATION

Regulatory Lists Searched:

01-1=IARC Group 1
01-2A=IARC Group 2A
01-2B=IARC Group 2B

Chemical Inventories:
All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

EU RISK and Safety Phrases: S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

WHMIS Classification:
This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

SECTION 16: OTHER INFORMATION

Revision Statement: This is a new Material Safety Data Sheet.
Revision Date: Jan 2021

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TWA - Time Weighted Average	TLV - Threshold Limit Value
PEL - Permissible Exposure Limit	STEL - Short-term Exposure Limit
CAS - Chemical Abstract Service Number	
IMO/IMDG - International Maritime Dangerous Goods Code	ACGIH - American Conference of Government Industrial Hygienists
MSDS - Material Safety Data Sheet	API - American Petroleum Institute
NFPA - National Fire Protection Association (USA)	CVX - Chevron
NTP - National Toxicology Program (USA)	DOT - Department of Transportation (USA)
OSHA - Occupational Safety and Health Administration	IARC - International Agency for Research on Cancer

Prepared according to the International Standard **(ISO 11014-1)** by the Chevron Energy Technology Company, 100 Chevron Way, Richmond, California 94802.