

SECTION 1: IDENTIFICATION**Product Identifier****Product Name:** MAC-200^{IM}**Product Code:** F02411**Intended Use of the Product**

Asphalt-based, aluminum roof paint. For professional use only.

Name, Address, and Telephone of the Responsible Party**Manufacturer**Bitec, Inc.
#2 Industrial Park Drive
Morrilton, AR 72110
T-800-535-8597
F-501-354-3019
www.bi-tec.com**Emergency Telephone Number****Emergency number** : 1-800-535-8597**SECTION 2: HAZARDS IDENTIFICATION****Classification of the Substance or Mixture****Classification (GHS-US)**Flam. Liq. 3 H226
Eye Irrit. 2A H319
Muta. 1B H340
Carc. 1A H350
STOT RE 1 H372
Asp. Tox. 1 H304
Aquatic Acute 1 H400
Aquatic Chronic 2 H411**Label Elements****GHS-US Labeling****Hazard Pictograms (GHS-US)** :**Signal Word (GHS-US)** :

: Danger

Hazard Statements (GHS-US) :: H226 - Flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H319 - Causes serious eye irritation
H340 - May cause genetic defects
H350 - May cause cancer
H372 - Causes damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects**Precautionary Statements (GHS-US)** :: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ventilating/lighting/ equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe mist/vapors/spray
P264 - Wash hands, forearms, and exposed areas thoroughly after handling

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
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
P314 - Get medical advice and attention if you feel unwell
P331 - If swallowed, do NOT induce vomiting
P337+P313 - If eye irritation persists: Get medical advice/attention
P370+P378 - In case of fire: Use appropriate media to extinguish
P391 - Collect spillage
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Contains a small amount of hydrogen sulfide. Hydrogen sulfide is a fatal, and highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Heating of this product and storage under elevated temperatures or over long periods of time may release higher amounts of hydrogen sulfide. Hydrogen sulfide is also an asphyxiant.

Unknown Acute Toxicity (GHS-US)

Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Stoddard solvent	(CAS No) 8052-41-3	15 - 40	Flam. Liq. 3, H226 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Asphalt	(CAS No) 8052-42-4	10 - 30	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351
Aluminum	(CAS No) 7429-90-5	10 - 30	Flam. Sol. 1, H228 Water-react. 2, H261
Naphtha, petroleum, hydrodesulfurized heavy	(CAS No) 64742-82-1	5 - 10	Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304
Quartz	(CAS No) 14808-60-7	1 - 3	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Hydrogen sulfide	(CAS No) 7783-06-4	1 - 3	Flam. Gas 1, H220 Liquefied gas, H280 Acute Tox. 2 (Inhalation:gas), H330 Eye Irrit. 2A, H319 STOT SE 1, H370 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Benzene, 1,2,4-trimethyl-	(CAS No) 95-63-6	1 - 3	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

			Carc. 2, H351 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
1,3,5-Trimethylbenzene	(CAS No) 108-67-8	1 - 3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Isopropyl alcohol	(CAS No) 67-63-0	0.1 - 1	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Seek medical attention.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Seek medical attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Seek medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes eye irritation. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Swallowing the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis.

Inhalation: May cause irritation to the respiratory tract.

Skin Contact: May cause skin irritation.

Eye Contact: Causes eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects. Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

Chronic Symptoms: May cause genetic defects. May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use extinguishing media containing water. Water or foam may cause frothing. Use of water on product above 100 °C (212 °F) can cause product to expand with explosive force.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: This product is flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Flammable liquid and vapor.

Advice for Firefighters

Precautionary Measures Fire: Not available

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularly at elevated temperatures. Hot asphalt can release toxic Hydrogen Sulfide gas! Hydrogen Sulfide can accumulate in vapor space of tanks and vessels during transfer and storage of this material.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Let the product solidify. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container tightly closed.

Storage Area: Store locked up. Store in a well-ventilated place.

Specific End Use(s) Aluminum Roof Paint

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Asphalt (8052-42-4)		
Mexico	OEL TWA (mg/m ³)	5 mg/m ³
Mexico	OEL STEL (mg/m ³)	10 mg/m ³
USA ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	5 mg/m ³
Alberta	OEL TWA (mg/m ³)	5 mg/m ³ (Petroleum; Bitumen)
British Columbia	OEL TWA (mg/m ³)	0.5 mg/m ³
Manitoba	OEL TWA (mg/m ³)	0.5 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	5 mg/m ³ (petroleum fumes)
Newfoundland & Labrador	OEL TWA (mg/m ³)	0.5 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	0.5 mg/m ³
Nunavut	OEL STEL (mg/m ³)	10 mg/m ³ (Petroleum fumes)
Nunavut	OEL TWA (mg/m ³)	5 mg/m ³ (Petroleum fumes)
Northwest Territories	OEL STEL (mg/m ³)	10 mg/m ³ (Petroleum fumes)
Northwest Territories	OEL TWA (mg/m ³)	5 mg/m ³ (Petroleum fumes)
Ontario	OEL TWA (mg/m ³)	0.5 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	0.5 mg/m ³
Québec	VEMP (mg/m ³)	5 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	1.5 mg/m ³ (fumes)
Saskatchewan	OEL TWA (mg/m ³)	0.5 mg/m ³
Yukon	OEL STEL (mg/m ³)	10 mg/m ³

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Yukon	OEL TWA (mg/m ³)	5 mg/m ³
Stoddard solvent (8052-41-3)		
Mexico	OEL TWA (mg/m ³)	523 mg/m ³
Mexico	OEL TWA (ppm)	100 ppm
Mexico	OEL STEL (mg/m ³)	1050 mg/m ³
Mexico	OEL STEL (ppm)	200 ppm
USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	2900 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	500 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	350 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	1800 mg/m ³
USA IDLH	US IDLH (mg/m ³)	20000 mg/m ³
Alberta	OEL TWA (mg/m ³)	572 mg/m ³
Alberta	OEL TWA (ppm)	100 ppm
British Columbia	OEL STEL (mg/m ³)	580 mg/m ³
British Columbia	OEL TWA (mg/m ³)	290 mg/m ³
Manitoba	OEL TWA (ppm)	100 ppm
New Brunswick	OEL TWA (mg/m ³)	525 mg/m ³
New Brunswick	OEL TWA (ppm)	100 ppm
Newfoundland & Labrador	OEL TWA (ppm)	100 ppm
Nova Scotia	OEL TWA (ppm)	100 ppm
Nunavut	OEL STEL (mg/m ³)	720 mg/m ³
Nunavut	OEL STEL (ppm)	125 ppm
Nunavut	OEL TWA (mg/m ³)	575 mg/m ³
Nunavut	OEL TWA (ppm)	100 ppm
Northwest Territories	OEL STEL (mg/m ³)	720 mg/m ³
Northwest Territories	OEL STEL (ppm)	125 ppm
Northwest Territories	OEL TWA (mg/m ³)	575 mg/m ³
Northwest Territories	OEL TWA (ppm)	100 ppm
Ontario	OEL TWA (mg/m ³)	525 mg/m ³ (140°C Flash aliphatic solvent)
Prince Edward Island	OEL TWA (ppm)	100 ppm
Québec	VEMP (mg/m ³)	525 mg/m ³
Québec	VEMP (ppm)	100 ppm
Saskatchewan	OEL STEL (ppm)	125 ppm
Saskatchewan	OEL TWA (ppm)	100 ppm
Yukon	OEL STEL (mg/m ³)	720 mg/m ³
Yukon	OEL STEL (ppm)	150 ppm
Yukon	OEL TWA (mg/m ³)	575 mg/m ³
Yukon	OEL TWA (ppm)	100 ppm
Benzene, 1,2,4-trimethyl- (95-63-6)		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	125 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	25 ppm
Hydrogen sulfide (7783-06-4)		
Mexico	OEL TWA (mg/m ³)	14 mg/m ³
Mexico	OEL TWA (ppm)	10 ppm
Mexico	OEL STEL (mg/m ³)	21 mg/m ³
Mexico	OEL STEL (ppm)	15 ppm
USA ACGIH	ACGIH TWA (ppm)	1 ppm
USA ACGIH	ACGIH STEL (ppm)	5 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	15 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm
USA IDLH	US IDLH (ppm)	100 ppm

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Alberta	OEL Ceiling (mg/m ³)	21 mg/m ³
Alberta	OEL Ceiling (ppm)	15 ppm
Alberta	OEL TWA (mg/m ³)	14 mg/m ³
Alberta	OEL TWA (ppm)	10 ppm
British Columbia	OEL Ceiling (ppm)	10 ppm
Manitoba	OEL STEL (ppm)	5 ppm
Manitoba	OEL TWA (ppm)	1 ppm
New Brunswick	OEL STEL (mg/m ³)	21 mg/m ³
New Brunswick	OEL STEL (ppm)	15 ppm
New Brunswick	OEL TWA (mg/m ³)	14 mg/m ³
New Brunswick	OEL TWA (ppm)	10 ppm
Newfoundland & Labrador	OEL STEL (ppm)	5 ppm
Newfoundland & Labrador	OEL TWA (ppm)	1 ppm
Nova Scotia	OEL STEL (ppm)	5 ppm
Nova Scotia	OEL TWA (ppm)	1 ppm
Nunavut	OEL Ceiling (mg/m ³)	28 mg/m ³
Nunavut	OEL Ceiling (ppm)	20 ppm
Nunavut	OEL STEL (mg/m ³)	21 mg/m ³
Nunavut	OEL STEL (ppm)	15 ppm
Nunavut	OEL TWA (mg/m ³)	14 mg/m ³
Nunavut	OEL TWA (ppm)	10 ppm
Northwest Territories	OEL Ceiling (mg/m ³)	28 mg/m ³
Northwest Territories	OEL Ceiling (ppm)	20 ppm
Northwest Territories	OEL STEL (mg/m ³)	21 mg/m ³
Northwest Territories	OEL STEL (ppm)	15 ppm
Northwest Territories	OEL TWA (mg/m ³)	14 mg/m ³
Northwest Territories	OEL TWA (ppm)	10 ppm
Ontario	OEL STEL (ppm)	15 ppm
Ontario	OEL TWA (ppm)	10 ppm
Prince Edward Island	OEL STEL (ppm)	5 ppm
Prince Edward Island	OEL TWA (ppm)	1 ppm
Québec	VECD (mg/m ³)	21 mg/m ³
Québec	VECD (ppm)	15 ppm
Québec	VEMP (mg/m ³)	14 mg/m ³
Québec	VEMP (ppm)	10 ppm
Saskatchewan	OEL STEL (ppm)	15 ppm
Saskatchewan	OEL TWA (ppm)	10 ppm
Yukon	OEL STEL (mg/m ³)	27 mg/m ³
Yukon	OEL STEL (ppm)	15 ppm
Yukon	OEL TWA (mg/m ³)	15 mg/m ³
Yukon	OEL TWA (ppm)	10 ppm

1,3,5-Trimethylbenzene (108-67-8)

USA NIOSH	NIOSH REL (TWA) (mg/m ³)	125 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	25 ppm

Quartz (14808-60-7)

Mexico	OEL TWA (mg/m ³)	0.1 mg/m ³
USA ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³
USA OSHA	OSHA PEL (STEL) (mg/m ³)	250 mppcf/%SiO ₂ +5, 10mg/m ³ /%SiO ₂ +2
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³
USA IDLH	US IDLH (mg/m ³)	50 mg/m ³
Alberta	OEL TWA (mg/m ³)	0.025 mg/m ³
British Columbia	OEL TWA (mg/m ³)	0.025 mg/m ³
Manitoba	OEL TWA (mg/m ³)	0.025 mg/m ³

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

New Brunswick	OEL TWA (mg/m ³)	0.1 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	0.025 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	0.025 mg/m ³
Nunavut	OEL TWA (mg/m ³)	0.3 mg/m ³ (total mass)
Northwest Territories	OEL TWA (mg/m ³)	0.3 mg/m ³ (total mass)
Ontario	OEL TWA (mg/m ³)	0.10 mg/m ³ (designated substances regulation)
Prince Edward Island	OEL TWA (mg/m ³)	0.025 mg/m ³
Québec	VEMP (mg/m ³)	0.1 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	0.05 mg/m ³
Yukon	OEL TWA (mg/m ³)	300 particle/mL
Isopropyl alcohol (67-63-0)		
Mexico	OEL TWA (mg/m ³)	980 mg/m ³
Mexico	OEL TWA (ppm)	400 ppm
Mexico	OEL STEL (mg/m ³)	1225 mg/m ³
Mexico	OEL STEL (ppm)	500 ppm
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	400 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	980 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	980 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	1225 mg/m ³
USA NIOSH	NIOSH REL (STEL) (ppm)	500 ppm
USA IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
Alberta	OEL STEL (mg/m ³)	984 mg/m ³
Alberta	OEL STEL (ppm)	400 ppm
Alberta	OEL TWA (mg/m ³)	492 mg/m ³
Alberta	OEL TWA (ppm)	200 ppm
British Columbia	OEL STEL (ppm)	400 ppm
British Columbia	OEL TWA (ppm)	200 ppm
Manitoba	OEL STEL (ppm)	400 ppm
Manitoba	OEL TWA (ppm)	200 ppm
New Brunswick	OEL STEL (mg/m ³)	1230 mg/m ³
New Brunswick	OEL STEL (ppm)	500 ppm
New Brunswick	OEL TWA (mg/m ³)	983 mg/m ³
New Brunswick	OEL TWA (ppm)	400 ppm
Newfoundland & Labrador	OEL STEL (ppm)	400 ppm
Newfoundland & Labrador	OEL TWA (ppm)	200 ppm
Nova Scotia	OEL STEL (ppm)	400 ppm
Nova Scotia	OEL TWA (ppm)	200 ppm
Nunavut	OEL STEL (mg/m ³)	1228 mg/m ³
Nunavut	OEL STEL (ppm)	500 ppm
Nunavut	OEL TWA (mg/m ³)	983 mg/m ³
Nunavut	OEL TWA (ppm)	400 ppm
Northwest Territories	OEL STEL (mg/m ³)	1228 mg/m ³
Northwest Territories	OEL STEL (ppm)	500 ppm
Northwest Territories	OEL TWA (mg/m ³)	983 mg/m ³
Northwest Territories	OEL TWA (ppm)	400 ppm
Ontario	OEL STEL (ppm)	400 ppm
Ontario	OEL TWA (ppm)	200 ppm
Prince Edward Island	OEL STEL (ppm)	400 ppm
Prince Edward Island	OEL TWA (ppm)	200 ppm

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Québec	VECD (mg/m ³)	1230 mg/m ³
Québec	VECD (ppm)	500 ppm
Québec	VEMP (mg/m ³)	985 mg/m ³
Québec	VEMP (ppm)	400 ppm
Saskatchewan	OEL STEL (ppm)	400 ppm
Saskatchewan	OEL TWA (ppm)	200 ppm
Yukon	OEL STEL (mg/m ³)	1225 mg/m ³
Yukon	OEL STEL (ppm)	500 ppm
Yukon	OEL TWA (mg/m ³)	980 mg/m ³
Yukon	OEL TWA (ppm)	400 ppm

Aluminum (7429-90-5)

Mexico	OEL TWA (mg/m ³)	10 mg/m ³
USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
Alberta	OEL TWA (mg/m ³)	10 mg/m ³
British Columbia	OEL TWA (mg/m ³)	1.0 mg/m ³
Manitoba	OEL TWA (mg/m ³)	1 mg/m ³
New Brunswick	OEL TWA (mg/m ³)	10 mg/m ³
Newfoundland & Labrador	OEL TWA (mg/m ³)	1 mg/m ³
Nova Scotia	OEL TWA (mg/m ³)	1 mg/m ³
Nunavut	OEL STEL (mg/m ³)	20 mg/m ³
Nunavut	OEL TWA (mg/m ³)	10 mg/m ³
Northwest Territories	OEL STEL (mg/m ³)	20 mg/m ³
Northwest Territories	OEL TWA (mg/m ³)	10 mg/m ³
Ontario	OEL TWA (mg/m ³)	1 mg/m ³
Prince Edward Island	OEL TWA (mg/m ³)	1 mg/m ³
Québec	VEMP (mg/m ³)	10 mg/m ³
Saskatchewan	OEL STEL (mg/m ³)	20 mg/m ³
Saskatchewan	OEL TWA (mg/m ³)	10 mg/m ³

Exposure Controls

Appropriate Engineering Controls: Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases/vapours may be released.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Not available

Hand Protection: protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Viscous, Silver
Odor	: Petroleum distillate
Odor Threshold	: Not available
pH	: Not available

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: 41 °C (105.8°F)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific Gravity	: 0.95 g/ml
Solubility	: Negligible
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Flammable liquid and vapor.

Chemical Stability: Product is stable.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Open flame.

Incompatible Materials: strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularly at elevated temperatures. Hot asphalt can release toxic Hydrogen Sulfide gas! Hydrogen Sulfide can accumulate in vapor space of tanks and vessels during transfer and storage of this material.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: May cause genetic defects.

Teratogenicity: Not available

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: May be fatal if swallowed and enters airways.

Symptoms/Injuries After Inhalation: May cause irritation to the respiratory tract.

Symptoms/Injuries After Skin Contact: May cause skin irritation.

Symptoms/Injuries After Eye Contact: Causes eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects. Aspiration into the lungs can occur during ingestion or vomiting and may cause lung injury.

Chronic Symptoms: May cause genetic defects. May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Information on Toxicological Effects - Ingredient(s)

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

LD50 and LC50 Data:

Asphalt (8052-42-4)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
Stoddard solvent (8052-41-3)	
LD50 Oral Rat	> 5 g/kg Behavioral somnolence
LD50 Dermal Rabbit	> 3 mg/kg
Benzene, 1,2,4-trimethyl- (95-63-6)	
LD50 Oral Rat	6000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
LC50 Inhalation Rat (mg/l)	18 g/m ³ (Exposure time: 4 h)
Hydrogen sulfide (7783-06-4)	
LC50 Inhalation Rat (mg/l)	0.99 mg/l (Exposure time: 1 h)
1,3,5-Trimethylbenzene (108-67-8)	
LC50 Inhalation Rat (mg/l)	24 g/m ³ (Exposure time: 4 h)
Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
Isopropyl alcohol (67-63-0)	
LD50 Oral Rat	4396 mg/kg
LD50 Dermal Rabbit	12800 mg/kg
LC50 Inhalation Rat (ppm)	16000 ppm (Exposure time: 8 h)
Naphtha, petroleum, hydrodesulfurized heavy (64742-82-1)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
Asphalt (8052-42-4)	
IARC Group	2B
National Toxicity Program (NTP) Status	Twelfth Report - Items under consideration.
Quartz (14808-60-7)	
IARC Group	1
National Toxicity Program (NTP) Status	Known Human Carcinogens.
Isopropyl alcohol (67-63-0)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not classified

Stoddard solvent (8052-41-3)	
LC50 Fish 1	0.42 mg/l
Benzene, 1,2,4-trimethyl- (95-63-6)	
LC50 Fish 1	7.19 (7.19 - 8.28) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Hydrogen sulfide (7783-06-4)	
LC50 Fish 1	0.0448 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC 50 Fish 2	0.016 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
1,3,5-Trimethylbenzene (108-67-8)	
LC50 Fish 1	3.48 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
Isopropyl alcohol (67-63-0)	
LC50 Fish 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	1000 mg/l (Exposure time: 96 h - Species: Desmodemus subspicatus)
LC 50 Fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Other Aquatic Organisms 2	1000 mg/l (Exposure time: 72 h - Species: Desmodemus subspicatus)

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Persistence and Degradability

MAC 200™	
Persistence and Degradability	Not established.

Bioaccumulative Potential

MAC 200™	
Bioaccumulative Potential	Not established.

Asphalt (8052-42-4)

BCF fish 1	(no bioaccumulation expected)
Log Pow	> 6

Stoddard solvent (8052-41-3)

Log Pow	3.16 (Octanol/water partition coefficient 3.16/7.06)
---------	--

Benzene, 1,2,4-trimethyl- (95-63-6)

Log Pow	3.63
---------	------

Hydrogen sulfide (7783-06-4)

BCF fish 1	(no bioaccumulation expected)
Log Pow	0.45 (at 25 °C)

Isopropyl alcohol (67-63-0)

Log Pow	0.05 (at 25 °C)
---------	-----------------

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

Additional Information: Prevent runoff from entering drains, sewers or waterways.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : Not regulated
Hazard Class :
Identification Number : UN1999
Label Codes :
Packing Group :
ERG Number :

14.2 In Accordance with IMDG

Proper Shipping Name : Tars, liquid
Hazard Class : 3
Identification Number : UN1999
Packing Group : III
Label Codes : 3
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E
MFAG Number :



14.3 In Accordance with IATA

Proper Shipping Name : Tars, liquid
Packing Group : III
Identification Number : UN1999
Hazard Class : 3
Label Codes :
ERG Code (IATA) : 3L



14.4 In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Asphalt (8052-42-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Stoddard solvent (8052-41-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Benzene, 1,2,4-trimethyl- (95-63-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 %
Hydrogen sulfide (7783-06-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 302 (Specific toxic chemical listings)	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 302 Threshold Planning Quantity (TPQ)	500
SARA Section 313 - Emission Reporting	1.0 %
1,3,5-Trimethylbenzene (108-67-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
Quartz (14808-60-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Isopropyl alcohol (67-63-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 % (only if manufactured by the strong acid process, no supplier notification)
Aluminum (7429-90-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 % (dust or fume only)
Naphtha, petroleum, hydrodesulfurized heavy (64742-82-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
US State Regulations	
Quartz (14808-60-7)	
U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
Asphalt (8052-42-4)	
RTK - U.S. - Massachusetts - Right To Know List	
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List	
RTK - U.S. - Pennsylvania - RTK (Right to Know) List	
Stoddard solvent (8052-41-3)	
RTK - U.S. - Massachusetts - Right To Know List	
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List	
RTK - U.S. - Pennsylvania - RTK (Right to Know) List	
Benzene, 1,2,4-trimethyl- (95-63-6)	
RTK - U.S. - Massachusetts - Right To Know List	
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List	
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
RTK - U.S. - Pennsylvania - RTK (Right to Know) List	
Hydrogen sulfide (7783-06-4)	
RTK - U.S. - Massachusetts - Right To Know List	
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List	

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List

1,3,5-Trimethylbenzene (108-67-8)

RTK - U.S. - Massachusetts - Right To Know List

Quartz (14808-60-7)

RTK - U.S. - Massachusetts - Right To Know List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Isopropyl alcohol (67-63-0)

RTK - U.S. - Massachusetts - Right To Know List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List

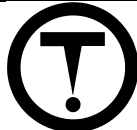
Aluminum (7429-90-5)

RTK - U.S. - Massachusetts - Right To Know List
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

MAC 200™

WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
----------------------	--



Asphalt (8052-42-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Stoddard solvent (8052-41-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.
Listed on the Canadian Ingredient Disclosure List

WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
----------------------	--

Benzene, 1,2,4-trimethyl- (95-63-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.
Listed on the Canadian Ingredient Disclosure List

WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
----------------------	--

Hydrogen sulfide (7783-06-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.
Listed on the Canadian Ingredient Disclosure List

WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
----------------------	---

1,3,5-Trimethylbenzene (108-67-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.
Listed on the Canadian Ingredient Disclosure List

WHMIS Classification	Class B Division 3 - Combustible Liquid
----------------------	---

MAC-200

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Quartz (14808-60-7)	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
Isopropyl alcohol (67-63-0)	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Aluminum (7429-90-5)	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
WHMIS Classification	Class B Division 6 - Reactive Flammable Material Class B Division 4 - Flammable Solid
Naphtha, petroleum, hydrodesulfurized heavy (64742-82-1)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 01/01/2015
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

Party Responsible for the Preparation of This Document

Bitec, Inc.
#2 Industrial Park Drive
Morrilton, AR 72110
T-800-535-8597
F-501-354-3019

This information is based on our knowledge as of the Revision Date and is intended to describe the product only for the purposes of health, safety, and environmental requirements as of the Revision Date. It should not therefore be construed as guaranteeing any specific property of the product nor as providing any warranty, expressed or implied. The user assumes all responsibility, liability, risk of loss, damage, or expense arising out of, or in any way connected with, the handling, storage, use, or disposal of the product.

North America GHS US 2012 & WHMIS