

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

Product ID: BGC-36315
Product Name: ArmorMembrane 363 SB
Revision Date: Feb 21, 2017 **Date Printed:** Feb 21, 2017
Version: 1.0 **Supersedes Date:** N.A.
Manufacturer's Name: Mar-flex Waterproofing & Building Products
Address: 500 Business Parkway Carlisle, OH, US, 45005
Emergency Phone: Chem-Trec: 1-800-424-9300
Information Phone Number: 513-422-7285
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Product/Recommended Uses:

SECTION 2) HAZARDS IDENTIFICATION

Classification:

Specific Target Organ Toxicity - Repeated Exposure - Category 2
Aspiration Hazard - Category 1
Skin Irritation - Category 2
Eye Irritation - Category 2A
Germ Cell Mutagenicity - Category 1B
Carcinogenicity - Category 1B
Reproductive Toxicity - Category 2
Chronic aquatic toxicity - Category 2
Acute aquatic toxicity - Category 2
Flammable Liquids - Category 3
Acute toxicity Oral - Category 5

Pictograms:



Signal Word:

Danger

Hazardous Statements - Physical:

Flammable liquid and vapor

Hazardous Statements - Health:

May cause damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.

May be harmful if swallowed

Hazardous Statements - Environmental:

Toxic to aquatic life

Toxic to aquatic life with long lasting effects

Precautionary Statements - General:

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

Keep out of reach of children.

Read label before use.

Precautionary Statements - Prevention:

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid release to the environment.

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

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical equipment.

Use only non-sparking tools.

Take action to prevent static discharges.

Precautionary Statements - Response:

IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of water.

Specific treatment (see First-aid measures on this SDS).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing. And wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF exposed or concerned: Get medical advice/attention.

Collect spillage.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

In case of fire: Use dry chemical, carbon dioxide, foam to extinguish.

Call a POISON CENTER/doctor, if you feel unwell.

Precautionary Statements - Storage:

Store locked up. Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal:

Dispose of contents/container to disposal recycling center.

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Hazards Not Otherwise Classified (HNOC):

Asphalt is liquid at 150 to 200 degrees F and skin contact will cause thermal burns. When heated this material may vent toxic levels of Hydrogen Sulfide (H2S) vapors that accumulate in the vapor spaces of storage and transport compartments. H2S can cause eye, skin and respiratory tract irritation and asphyxiation. Avoid skin contact. Repeated and long term skin exposure to components of this product has caused cancer in laboratory animals.

Acute toxicity of less than one percent of the mixture is unknown

SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0008052-42-4	BITUMENS	29% - 67%
0064742-65-0	MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-DEWAXED HEAVY PARAFFINIC	6% - 10%
0001330-20-7	XYLENE	5% - 9%
0064742-49-0	VM & P NAPHTHA	4% - 7%
0064742-89-8	ALIPHATIC, LIGHT HYDROCARBON SOLVENT	4% - 7%
0000142-82-5	N-HEPTANE	3% - 5%
0068410-97-9	LACQUER DILUENT NAPHTHA	3% - 5%
0064742-95-6	AROMATIC HYDROCARBON MIXTURE >C9	2% - 3%
0000100-41-4	ETHYLBENZENE	2% - 3%
0000110-54-3	HEXANE	1.4% - 3%
0000095-63-6	1,2,4-TRIMETHYLBENZENE	0.0% - 3%
0000108-88-3	TOLUENE	0.0% - 1.0%
0000098-82-8	CUMENE	0.0% - 0.6%
0000108-67-8	MESITYLENE	0.0% - 0.6%
0000526-73-8	1,2,3-TRIMETHYLBENZENE	0.0% - 0.6%
0000110-82-7	CYCLOHEXANE	0.0% - 0.5%
0000071-43-2	BENZENE	Trace
0000091-20-3	NAPHTHALENE	Trace

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation:

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell or are concerned.

Eye Contact:

Contact with hot asphalt: flush with large amounts of tepid water for at least 15 minutes. Immediately call a doctor.

For contact with vapors: Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Skin Contact:

Contact with hot asphalt: immerse or flush skin with cold water for at least 15 minutes. Immediately call doctor. Do not attempt to remove solidified material since removal may cause further tissue injury. Cold material over a burn should not be removed except by a physician. Remove cold material (not associated with a burn) with waterless hand cleaner and then wash with soap and water.

Ingestion:

Unlikely route of exposure. CALL A PHYSICIAN IMMEDIATELY! DO NOT induce vomiting. Keep calm. Do not leave unattended.

Most Important Symptoms and Effects, Both Acute and Delayed:

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, mouth and throat irritation (soreness, dry or scratchy feeling, cough) stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways), tight feeling in the chest, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system effects, temporary changes in mood behavior, loss of appetite, muscle weakness, respiratory depression (slowing of the breathing rate), shortness of breath, loss of coordination, confusion, irregular heartbeat, narcosis (dazed or sluggish feeling), coma and death.

Indication of Any Immediate Medical Attention and Special Treatment Needed:

Inhalation of high concentration of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 4 - Ingestion) when deciding whether to induce vomiting. Pre-existing disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), liver, kidney, central nervous system, male reproductive system and/or auditory system. Individuals with pre-existing heart disorders may be more susceptible to arrhythmias (irregular heartbeat) if exposed to high concentrations of this material.

Recommended practice is not to attempt to remove hot material associated with a burn. Allow the solidified material to remain in place until cooled so it can naturally fall off. Natural separation will occur in 48-72 hours. If removal is attempted, mineral oil may be used to remove asphalt once it has cooled. For best results, work it into the skin around the material and allow the material to "float" off.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Dry chemical, foam, carbon dioxide. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Sand or earth may be used for small fires only.

Unsuitable Extinguishing Media:

Do not use direct water stream. Since this may cause fire to spread.

Specific Hazards in Case of Fire:

Treat as fuel fire.

Hazardous decomposition materials (under fire conditions) include oxides of carbon.

Burning produces noxious and toxic fumes.

Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights or other ignition sources distant from material handling point.

Fire-fighting Procedures:

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions:

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure:

ELIMINATE all ignition sources (no smokes, flares, sparks or flames in immediate area).

Do not touch or walk through spilled material.

Isolate hazard area and keep unnecessary people away. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

If spilled material is cleaned up using a regulated solvent, the resulting mixture may be regulated.

Recommended Equipment:

Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

Personal Precautions:

Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions:

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up:

Contain and collect spilled materials with non-combustible, absorbent material and place in a container for disposal according to local regulations. Dispose via a licensed waste disposal contractor. Contaminated absorbent material may pose the same physical hazards as the product.

SECTION 7) HANDLING AND STORAGE

General:

Wash hands after use.
 Do not get in eyes, on skin or on clothing.
 Do not breathe vapors or mists.
 Use good personal hygiene practices.
 Eating, drinking and smoking in work areas is prohibited.
 Remove contaminated clothing and protective equipment before entering eating areas.
 Eyewash stations and showers should be available in areas where this material is used and stored.

Ventilation Requirements:

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements:

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight, strong oxidizers and any incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers can retain residue and may be dangerous.

Take precautionary measures against electrostatic discharge. To avoid fire or explosion, dissipate static electricity during transfer by ground and bonding containers and equipment before transferring material. Protect from atmospheric moisture.

Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Take precautionary measures against electrostatic discharge. To avoid fire or explosion, dissipate static electricity during transfer by ground and bonding containers and equipment before transferring material.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection:

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection:

When handling hot material, use heat resistant gloves.

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA STEL (mg/m3)	OSHA Carcinogen	OSHA Skin designation	OSHA Tables (Z1, Z2, Z3)	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)	NIOSH STEL (mg/m3)	NIOSH STEL (ppm)	NIOSH Carcinogen
1,2,3-TRIMETHYLBENZENE								125	25			
1,2,4-TRIMETHYLBENZENE								125	25			
ALIPHATIC, LIGHT HYDROCARBON SOLVENT		2000	500				1					
AROMATIC HYDROCARBON MIXTURE >C9		2000	500				1					
BENZENE	50(a)/10minutes.		1 (a) / 25ceiling		1		1		0.1c		1c	1
BITUMENS												1

CUMENE		245	50			1	1	245	50			
CYCLOHEXANE		1050	300				1	1050	300			
ETHYLBENZENE		435	100				1	435	100	545	125	
HEXANE		1800	500				1	180	50			
LACQUER DILUENT NAPHTHA		2000	500				1					
MESITYLENE								125	25			
MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-DEWAXED HEAVY PARAFFINIC		2000	500				1					
NAPHTHALENE		50	10				1	50	10	75	15	
N-HEPTANE		2000	500				1	350	85			
TOLUENE	500ppm /10 minutes (a)	0.2	200 (a)/ 300 ceiling				1,2	375	100	560	150	
VM & P NAPHTHA		2000	500				1	350				
XYLENE		435	100				1	435	100	655	150	

Chemical Name	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH TLV Basis	ACGIH Carcinogen	ACGIH Notations
1,2,3- TRIMETHYLBENZEN EA							
1,2,4- TRIMETHYLBENZEN E							
ALIPHATIC, LIGHT HYDROCARBON SOLVENT							
AROMATIC HYDROCARBON MIXTURE >C9							
BENZENE	1.6	0.5	8	2.5	Leukemia	A1	Skin; A1; BEI
BITUMENS	0.5				URT & eye irr	A4	A4; BEI
CUMENE	246	50			Eye, skin, & URT irr; CNS impair		
CYCLOHEXANE		100			CNS impair		
ETHYLBENZENE		20			URT irr;Kidney dam (nephropat hy); Cochlear impair	A3	A3; BEI
HEXANE	176	50			CNS impair; peripheral neuropathy ; eye irr		Skin, BEI
LACQUER DILUENT NAPHTHA							
MESITYLENE							

MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-DEWAXED HEAVY PARAFFINIC							
NAPHTHALENE		10			URT irr; cataracts; hemolytic anemia	A3	Skin; A3
N-HEPTANE	1640	400	2050	500	CNS impair; URT irr		
TOLUENE	0.2	20			Visual impair; female repro; pregnancy loss	A4	A4; BEI
VM & P NAPHTHA							
XYLENE	434	100	651	150	URT & eye irr; CNS imampir	A4	A4; BEI

A1 - Confirmed Human Carcinogen, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, A4 - Not Classifiable as a Human Carcinogen, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, eff - Effects, impair - Impairment, irr - Irritation, repro - reproductive, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	7.84 lb/gal
% Solids By Weight	N/A
Density VOC	2.62 lb/gal
% VOC	33.43%
Specific Gravity	0.94

Appearance	Black/brown liquid
Odor Threshold	N.A.
Odor Description	Hydrocarbon odor
pH	N.A.
Water Solubility	Insoluble in water
Flammability	Flashpoints at or above 100 °F and less than 200 °F
Flash Point Symbol	N.A.
Flash Point	105 °F
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Pressure	N.A.
Vapor Density	Heavier than air
Freezing Point	N.A.
Melting Point	90 °F
Low Boiling Point	200 - 300 °F
High Boiling Point	N.A.
Auto Ignition Temp	N.A.
Decomposition Pt	N.A.
Evaporation Rate	Slower than ether
Coefficient Water/Oil	N.A.

SECTION 10) STABILITY AND REACTIVITY

Stability:

The product is stable under normal storage conditions.

Conditions to Avoid:

Avoid heat, sparks, flame, high temperature and contact with incompatible materials.

Hazardous Reactions/Polymerization:

Will not occur.

Incompatible Materials:

Oxidizers, strong acids and bases.

Hazardous Decomposition Products:

Combustion produces toxic oxides of sulfur, carbon monoxide, sulfur dioxide, hydrogen sulfide and hydrocarbons.

SECTION 11) TOXICOLOGICAL INFORMATION

Likely Route of Exposure:

Inhalation, ingestion, skin absorption

Skin Corrosion/Irritation:

Causes skin irritation

Serious Eye Damage/Irritation:

Causes serious eye irritation

Respiratory/Skin Sensitization:

No data available

Germ Cell Mutagenicity:

May cause genetic defects.

Carcinogenicity:

May cause cancer.

Reproductive Toxicity:

Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure:

No data available

Specific Target Organ Toxicity - Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard:

May be fatal if swallowed and enters airways

Acute Toxicity:

No data available

0000142-82-5 N-HEPTANE

LC50 (rat): approximately 25000 ppm (4-hour exposure); cited as 103 g/m³ (4-hour exposure) (6)

LD50 (oral, rat): Greater than 15000 mg/kg (4)

0000108-88-3 TOLUENE

LC50 (rat): 8800 ppm (4-hour exposure) (2)

LC50 (rat): 6000 ppm (6-hour exposure) (3)

LD50 (oral, rat): 2600 to 7500 mg/kg (3,5,11,17)

LD50 (oral, neonatal rat): less than 870 mg/kg (3)

LD50 (dermal, rabbit): 12,225 mg/kg (reported as 14.1 ml/kg) (1)

0000100-41-4 ETHYLBENZENE

LC50 (inhalation, rat): 4000 ppm; 4-hour exposure (3)

LD50 (oral, rat): 3.5 g/kg (1,3,5,10)

LD50 (oral, rat): 4.72 g/kg (3,5,7,8)

LD50 (dermal, rabbit): 17.8 g/kg (11)

0000091-20-3 NAPHTHALENE

LC50: Insufficient data

LD50 (oral, mouse): 533 mg/kg (male); 710 mg/kg (female) (1)

LD50 (oral, rat): 1780 mg/kg (2)

0000071-43-2 BENZENE

LC50 (rat): 13,700 ppm (4 hour exposure) (26); 9,980 ppm (7 hour exposure) (13,200 ppm - equivalent 4 hour exposure) (18)

LD50 (oral, rat): 930 mg/kg (19); 5,600 mg/kg (2); 11.4 ml/kg (10,032 mg/kg) (21)

LD50 (oral, mouse): 4,700 mg/kg (11; unconfirmed)

LD50 (skin, rabbit and guinea pig): Greater than 9,400 mg/kg (20)

0008052-42-4 BITUMENS

LC50 (Rodent - rat, Inhalation) : >94.4 mg/m³, Toxic effects : Details of toxic effects not reported other than lethal dose value.

LD50 (Rodent - rat, Oral) : >5000 mg/kg, Toxic effects : Gastrointestinal - hypermotility, diarrhea.

0064742-65-0 MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-DEWAXED HEAVY PARAFFINIC

LD50 (Rodent - rat, Oral) : >5000 mg/kg, Toxic effects : Details of toxic effects not reported other than lethal dose value.

LD50 (Rodent - rabbit, Administration onto the skin) : 5000 mg/kg, Toxic effects : Details of toxic effects not reported other than lethal dose value.

0000110-54-3 HEXANE

LC50 (male rat): 38500 ppm (4-hour exposure); cited as 77000 ppm (271040 mg/m³) (1-hour exposure) (15)

LC50 (rat): 48000 ppm (4-hour exposure) (16)

LC50 (rat): 73680 ppm (260480 mg/m³) (4-hour exposure) (n-hexane and isomers) (1,3)

LD50 (oral, 14-day old rat): 15840 mg/kg (3)

LD50 (oral, young rat): 32340 mg/kg (3)

LD50 (oral, adult rat): 28700 mg/kg (3,16)

0001330-20-7 XYLENE

LC50 (rat): 6350 ppm (4-hour exposure) (unspecified isomers and ethylbenzene) (1)LC50 (rat): 6700 ppm (4-hour exposure) (65% m-xylene, 7.6% o-xylene, 7.8% p-xylene, 19.3% ethylbenzene) (2) ethylbenzene) (1)

LC50 (rat): 6700 ppm (4-hour exposure) (65% m-xylene, 7.6% o-xylene, 7.8% p-xylene, 19.3% ethylbenzene)(2)

LD50 (oral, rat): 5400 mg/kg (52% m-, 19% o-, 24% p-) (1)LD50 (oral, female mouse): 5251 mg/kg (60.2% m-, 9.1% o-, 14.6% p-, 17.0% ethylbenzene) (4)

LD50 (oral, male mouse): 5627 mg/kg (60.2% m-, 9.1% o-, 14.6% p-, 17.0% ethylbenzene) (4)

LD50 (dermal, rabbit): 12180 mg/kg (m-xylene); greater than 1700 mg/kg (mixed xylenes - undefined composition) (3)

LD50 (oral, female mouse): 5251 mg/kg (60.2% m-, 9.1% o-, 14.6% p-, 17.0% ethylbenzene) (4)

LD50 (oral, male mouse): 5627 mg/kg (60.2% m-, 9.1% o-, 14.6% p-, 17.0% ethylbenzene) (4)

LD50 (dermal, rabbit): 12180 mg/kg (m-xylene); greater than 1700 mg/kg (mixed xylenes - undefined composition) (3)

0000098-82-8 CUMENE

LC50 (inhalation, mouse): 10 mg/L; (2000 ppm); 7-hr exposure (1,3)

LC50 (inhalation, rat): 39 mg/L (8000 ppm); 4-hr exposure (1,3,6)

LD50 (oral, rat): Reported as 1.4 g/kg and 2.26 g/kg (1,3,4)

LD50 (skin, rabbit): 10627 mg/kg (4)

0025551-13-7 TRIMETHYLBENZENE

LD50(oral,rat): 8970 mg/kg

0000095-63-6 1,2,4-TRIMETHYLBENZENE

LC50 (rat): 18 g/m³ (4-hour exposure) (1)

LD50 (oral, rat): 5 g/kg (1)

0000108-67-8 MESITYLENE

LC50 (rat): 24 g/m³ (4-hour exposure) (2)

0000110-82-7 CYCLOHEXANE

LD50 (oral, rat): 8-39 mL/kg (6200 to 30400 mg/kg) (3)

LD50 (oral, mouse): 1300 mg/kg (3)

LD50 (dermal, rabbit): Greater than 18000 mg/kg (4)

Potential Health Effects - Miscellaneous

0000091-20-3 NAPHTHALENE

Is an IARC, NTP or OSHA carcinogen. Tests in some laboratory animals demonstrate carcinogenic activity. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: kidneys, liver. Recurrent overexposure may result in liver and kidney injury. WARNING: This chemical is known to the State of California to cause cancer.

0000100-41-4 ETHYLBENZENE

Is an IARC, NTP or OSHA carcinogen. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, lungs. Recurrent overexposure may result in liver and kidney injury. Studies in laboratory animals have shown reproductive, embryotoxic and developmental effects. WARNING: This chemical is known to the State of California to cause cancer.

0000108-88-3 TOLUENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, respiratory system, skin. Can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heart beats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

0000142-82-5 N-HEPTANE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, respiratory system, skin. May cause central nervous system effects such as dizziness, headache, nausea, and loss of consciousness. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

0001330-20-7 XYLENE

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: bone marrow, cardiovascular system, central nervous system, kidneys, liver, lungs. Recurrent overexposure may result in liver and kidney injury. High exposures may produce irregular heart beats. Canada classifies Xylene as a developmental toxin as high exposures to xylenes in some animal studies have been reported to cause health effects on the developing fetus/embryo. These effects were often at levels toxic to the adult animal. The significance of these effects to humans is not known. Repeated or prolonged skin contact may cause any of the following: irritation, dryness, cracking of the skin.

0008052-42-4 BITUMENS

Is an IARC carcinogen. Occupational exposures to straight-run bitumens and their emissions during road paving are possibly carcinogenic to humans (Group 2B)

0064742-89-8 ALIPHATIC, LIGHT HYDROCARBON SOLVENT

Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

0064742-95-6 AROMATIC HYDROCARBON MIXTURE >C9

The following medical conditions may be aggravated by exposure: skin disorders. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

Chronic Exposure

0000098-82-8 CUMENE

TERATOGENIC EFFECTS:Cumene has been Classified as POSSIBLE for humans.

0000100-41-4 ETHYLBENZENE

CARCINOGENIC EFFECTS: Ethyl Benzene has been listed by IARC as Group 2B, Possibly Carcinogenic to Humans.

TERATOGENIC EFFECTS: Ethyl Benzene has been Classified as POSSIBLE for humans.

0000108-88-3 TOLUENE

TERATOGENIC EFFECTS:Toluene has been Classified as POSSIBLE for humans.

0001330-20-7 XYLENE

High exposure to Xylenes in some animal studies have been reported to cause health effects on the developing embryo/fetus.

Xylene in high concentrations has caused embryotoxic effects in laboratory animals.

SECTION 12) ECOLOGICAL INFORMATION

Toxicity:

Toxic to aquatic life with long lasting effects

Persistence and Degradability:

No data available.

Other Adverse Effects:

No data available.

Bio-accumulative Potential

0064742-65-0 MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-DEWAXED HEAVY PARAFFINIC

Contains constituents with the potential to bioaccumulate.

Mobility in Soil

0064742-65-0 MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT-DEWAXED HEAVY PARAFFINIC

Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal:

Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information:UN number: N/A
Proper shipping name: Not regulated, non-bulk
Hazard class: N/A
Packaging group: N/A
Hazardous substance (RQ): No data available
Toxic-Inhalation Hazard: No data available
Marine Pollutant: No data available
Note / Special Provision: No data available**IMDG Information:**UN number: UN1999
Proper shipping name: Tars, liquid including road oils and cutback bitumens
Hazard class: 3
Packaging group: III
Marine Pollutant: No data available
Note / Special Provision: No data available**IATA Information:**UN number: UN1999
Hazard class: 3
Packaging group: III
Proper shipping name: Tars, liquid including road oils and cutback bitumens
Note / Special Provision: No data available

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0008052-42-4	BITUMENS	29% - 67%	SARA312,IARCCarcinogen,TSCA,TSCA_UVCB - CHEMICAL SUBSTANCES OF UNKNOWN OR VARIABLE COMPOSITION, COMPLEX REACTION PRODUCTS AND BIOLOGICAL MATERIALS
0064742-65-0	MINERAL OIL, PETROLEUM DISTILLATES, SOLVENT- DEWAXED HEAVY PARAFFINIC	6% - 10%	SARA312,TSCA,TSCA_UVCB - CHEMICAL SUBSTANCES OF UNKNOWN OR VARIABLE COMPOSITION, COMPLEX REACTION PRODUCTS AND BIOLOGICAL MATERIALS
0001330-20-7	XYLENE	5% - 9%	SARA313, CERCLA,SARA312,VOC,IARCCarcinogen,TSCA

0064742-49-0	VM & P NAPHTHA	4% - 7%	SARA312,VOC,TSCA,TSCA_UVCB - CHEMICAL SUBSTANCES OF UNKNOWN OR VARIABLE COMPOSITION, COMPLEX REACTION PRODUCTS AND BIOLOGICAL MATERIALS
0064742-89-8	ALIPHATIC, LIGHT HYDROCARBON SOLVENT	4% - 7%	SARA312,VOC,TSCA,TSCA_UVCB - CHEMICAL SUBSTANCES OF UNKNOWN OR VARIABLE COMPOSITION, COMPLEX REACTION PRODUCTS AND BIOLOGICAL MATERIALS
0000142-82-5	N-HEPTANE	3% - 5%	SARA312,VOC,TSCA
0068410-97-9	LACQUER DILUENT NAPHTHA	3% - 5%	SARA312,VOC,TSCA,TSCA_UVCB - CHEMICAL SUBSTANCES OF UNKNOWN OR VARIABLE COMPOSITION, COMPLEX REACTION PRODUCTS AND BIOLOGICAL MATERIALS
0064742-95-6	AROMATIC HYDROCARBON MIXTURE >C9	2% - 3%	SARA312,VOC,TSCA,TSCA_UVCB - CHEMICAL SUBSTANCES OF UNKNOWN OR VARIABLE COMPOSITION, COMPLEX REACTION PRODUCTS AND BIOLOGICAL MATERIALS
0000100-41-4	ETHYLBENZENE	2% - 3%	SARA313, CERCLA,SARA312,VOC,IARCCarcinogen,TSCA,CA_Prop65 - California Proposition 65,CA_Prop65_Type_Toxicity_Cancer - CA_Proposition65_Type_Toxicity_Cancer
0000110-54-3	HEXANE	1.4% - 3%	SARA313, CERCLA,SARA312,VOC,TSCA
0000095-63-6	1,2,4-TRIMETHYLBENZENE	0.0% - 3%	SARA313, SARA312,VOC,TSCA
0000108-88-3	TOLUENE	0.0% - 1.0%	SARA313, CERCLA,SARA312,VOC,IARCCarcinogen,TSCA,CA_Prop65 - California Proposition 65,CA_Prop65_Type_Toxicity_Develop - CA_Proposition65_Type_Toxicity_Developmental
0000098-82-8	CUMENE	0.0% - 0.6%	SARA313, CERCLA,SARA312,VOC,NTPCarcinogen,TSCA,CA_Prop65 - California Proposition 65,CA_Prop65_Type_Toxicity_Cancer - CA_Proposition65_Type_Toxicity_Cancer
0000108-67-8	MESITYLENE	0.0% - 0.6%	SARA312,VOC,TSCA
0000526-73-8	1,2,3-TRIMETHYLBENZENE	0.0% - 0.6%	SARA312,VOC,TSCA
0000110-82-7	CYCLOHEXANE	0.0% - 0.5%	SARA313, CERCLA,SARA312,VOC,TSCA
0000071-43-2	BENZENE	Trace	SARA313, CERCLA,SARA312,VOC,IARCCarcinogen,NTPCarcinogen,TSCA,CA_Prop65 - California Proposition 65,CA_Prop65_Type_Toxicity_Cancer - CA_Proposition65_Type_Toxicity_Cancer,CA_Prop65_Type_Toxicity_Develop - CA_Proposition65_Type_Toxicity_Developmental,CA_Prop65_Type_Toxicity_Male - CA_Proposition65_Type_Toxicity_Male
0000091-20-3	NAPHTHALENE	Trace	SARA313, CERCLA,SARA312,VOC,TSCA,CA_Prop65 - California Proposition 65,CA_Prop65_Type_Toxicity_Cancer - CA_Proposition65_Type_Toxicity_Cancer

SECTION 16) OTHER INFORMATION

Glossary:

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- ESE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS

Health	* 3
FLAMMABILITY	2
Physical Hazard	0
Personal Protection	J

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

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