

MATERIAL SAFETY DATA SHEET

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MSDS Number: BC29QT ; BC5GL ;

I. CHEMICAL PRODUCT IDENTIFICATION

Product Name: BITUMINOUS COATING
HMIS Ratings:
 Health: Moderate(2)
 Flammability: Moderate(2)
 Instability/Reactivity: Minimal(0)
NFPA Ratings:

II. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients	C.A.S. Number	% By Weight	ACGIH TLV TWA/STEL	OSHA PEL TWA/STEL	Other TWA/STEL	LD50	LC50
PETROLEUM DISTILLATE (STODDARD SOLVENT)	8052-41-3	25-55	525 MG/M ³ NONE ESTABLISHED	2900 MG/M ³ NONE ESTABLISHED			
Notes	NIOSH REL: TWA-350 MG/M ³ ; STEL-1800 MG/M ³ ; NIOSH IDLH: 20000 MG/M ³						
ASPHALT, OXIDIZED	64742-93-4	45-75	0.5 MG/M ³ NONE ESTABLISHED	NONE ESTABLISHED NONE ESTABLISHED		RAT (ORAL) 5-15 G/KG	
Notes	NIOSH REL: TWA-NONE ESTABLISHED; STEL-5MG/M ³ (CEILING); NIOSH IDLH: NONE ESTABLISHED						

III. HAZARDS IDENTIFICATION PRIMARY ROUTE OF ENTRY

Eyes: HIGHLY IRRITATING; A SIGNIFICANT THERMAL HAZARD UNDER NORMAL USAGE DUE TO HIGH TEMPERATURES REQUIRED FOR APPLICATION.

Skin: MODERATELY IRRITATING; HOT ASPHALT WILL CAUSE SEVERE BURNS. MAY LEAD TO PHOTSENSITIZATION AND DRYING OF THE SKIN.

Ingestion: IRRITATING TO MUCOUS MEMBRANES AND GASTROINTESTINAL TRACT. MAY CAUSE THERMAL BURNS AS WELL AS NAUSEA, VOMITING AND DIARRHEA.

Inhalation: IRRITATING TO MOCOUS MEMBRANES AND RESPIRATORY TRACT. MAY PRODUCE SYMPTOMS SUCH AS HEADACHE, DIZZINESS, NAUSEA, VOMITING, AND LOSS OF COORDINATION.

Signs and Symptoms of Exposure: PROLONGED AND REPEATED SKIN CONTACT MAY CAUSE DERMATITIS, PHOTSENSITIZATION, AND MELANOSIS. EVIDENCE FROM ANIMAL STUDIES SUGGEST THAT ASPHALT LEFT ON THE SKIN FOR LONG PERIODS OF TIME MAY RESULT IN LOCAL CARCINOMAS, BUT THERE HAVE BEEN NO REPORTS OF SUCH EFFECTS ON HUMAN SKIN THAT CAN BE ATTRIBUTED TO ASPHALT ALONE.

Other: CARCINOGENICITY: IARC, NTP, AND OSHA DO NOT LIST PRODUCT AS CARCINOGEN. HOWEVER THIS PETROLEUM BASED PRODUCT CONTAINS A VARIABLE AMOUNT OF POLYCYCLIC AROMATIC HYDROCARBONS WHICH HAVE BEEN SHOWN TO CAUSE CANCER AND RESPIRATORY DAMAGE IN LABORATORY ANIMALS.

IV. FIRST AID MEASURES

Eyes:

FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES. IF BURNING PERSISTS SEEK MEDICAL ATTENTION.

Skin: IF MOLTEN ASPHALT STRIKES THE EXPOSED SKIN, COOL THE SKIN IMMEDIATELY BY QUENCHING WITH COLD WATER. WASH THOROUGHLY WITH SOAP AND WATER. DO NOT USE HARSH SOLVENTS TO REMOVE ASPHALT FROM SKIN. LOTION OR HAND CREAM MAY AID IN THE REMOVAL OF ASPHALT. COVER WITH STERILE DRESSING. SEEK MEDICAL ATTENTION IF NEEDED.

Ingestion: DO NOT INDUCE VOMITING AND SEEK MEDICAL HELP.

Inhalation: REMOVE TO FRESH AIR. APPLY ARTIFICIAL RESPIRATION IF NEEDED. SEEK MEDICAL ATTENTION.

Other: SPECIAL PRECAUTIONS/PROCEDURES: THE PETROLEUM HYDROCARBONS IN THIS PRODUCT ARE A COMPLEX MIXTURE OF PARAFFINIC, NAPHTHENIC, AND AROMATIC HYDROCARBONS. AS WITH OTHER PETROLEUM PRODUCTS, THE AROMATIC COMPOUNDS ARE PRESENT IN VARYING CONCENTRATIONS AND STRUCTURES. SOME OF THESE COMPOUNDS MAY BE THOSE WHICH HAVE BEEN SHOWN TO RESULT IN TUMOR FORMATION IN ANIMALS UNDER LABORATORY CONDITIONS. THE CONCENTRATION OR AROMATIC COMPOUNDS IN THIS PRODUCT REQUIRE THAT THE PRECAUTIONS OUTLINED IN THIS MSDS BE FOLLOWED TO MINIMIZE PERSONNEL EXPOSURE.

V. FIRE FIGHTING MEASURES

Flash Point: 105°F

Test Method: TCC

Lower Flammability Limit: 0.9%

Upper Flammability Limit: 6.7%

Extinguishing Agents: DRY CHEMICAL, FOAM, AND CARBON DIOXIDE. DO NOT USE WATER.

Unusual Fire or Explosion Hazards: THIS PRODUCT MAY IGNITE WHEN SUFFICIENT HEAT IS APPLIED. CHECK FOR COMBUSTIBLE VAPORS PRIOR TO AND DURING WELDING OR TORCH CUTTING ON VESSELS OR TANKS. IT HAS BEEN FOUND THAT IN HOT STORAGE TANKS LOW FLASH SUBSTANCES MAY ACCUMULATE IN VAPOR SPACE. THE FLAMMABILITY CHARACTERISTICS WILL NOT BE DETECTED BY ANY FLASH POINT METHOD. KEEP IGNITION SOURCES AWAY FROM TANK VENTS AND PREVENT ACCUMULATION OF PYROPHORIC IRON SULFIDE.
HAZARDOUS COMBUSTION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, AND SULFUR DIOXIDE.

Fire Fighting Procedures: USE OF FOAM OR WATER MAY CAUSE FROTHING. DO NOT RELEASE RUNOFF FROM FIRE CONTROL METHODS TO SEWERS OR WATERWAYS. USE A WATER SUPPLY TO COOL FIRE-EXPOSED CONTAINERS. USE SELF-CONTAINED BREATHING APPARATUS IN ENCLOSED AREAS WHERE HEAVY SMOKE MAY OCCUR.

VI. ACCIDENTAL RELEASE MEASURES

Containment/Cleanup: SPILL/LEAK PROCEDURES: STOP SPILL AT SOURCE. CONFINE BY DIKING OR IMPOUNDMENT. REMOVE SOURCES OF HEAT OR IGNITION. CLEAN-UP SPILL BUT DO NOT FLUSH TO SEWER OR SURFACE WATER. VENTILATE AREA AND AVOID BREATHING VAPORS OR MISTS.
SMALL SPILLS: STOP SPILL AT SOURCE IF POSSIBLE. ISOLATE AND CONFINE BY DIKING, OR SIMILAR METHOD. REMOVE DISCHARGED MATERIAL.

LARGE SPILLS CONTAINMENT: FOR LARGE SPILLS, DIKE FAR AHEAD OF LIQUID SPILL FOR LATER DISPOSAL. DO NOT RELEASE INTO SEWERS OR WATERWAYS.

CLEANUP: ALLOW MATERIAL TO COOL. MIX WITH INERT ABSORBENT MATERIAL SUCH AS SOIL, SAND, OR OIL DRY, TO STABILIZE.

Other: REGULATORY REQUIREMENTS: NOTIFY LOCAL HEALTH AND POLLUTION CONTROL AGENCIES AS APPROPRIATE. FOLLOW APPLICABLE OSHA REGULATIONS (29 CFR 1900.120). THIS MATERIAL IS NOT A HAZARDOUS WASTE AS DEFINED IN RCRA. FOR DISPOSAL FOLLOW ALL FEDERAL STATE, AND LOCAL REGULATIONS REGARDING SOLID WASTE.

VII. HANDLING AND STORAGE

Other: HANDLING PRECAUTIONS: DO NOT ADD WATER TO THIS PRODUCT. THIS MAY RESULT IN FROTHING OF THE MIXTURE, CAUSING HOT ASPHALT TO OVERFLOW THE CONTAINER. USE THIS PRODUCT WITH ADEQUATE VENTILATION.
STORAGE REQUIREMENTS: GROUND AND BOND ALL TRANSFER AND STORAGE EQUIPMENT. VENTILATION IS REQUIRED.
REGULATORY REQUIREMENTS: NONE KNOWN

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: GOGGLES AND FACE SHIELDS SHOULD BE USED IN AREAS WHERE SPLASHING MAY OCCUR. WEAR PROTECTIVE EYEGLASSES OR SAFETY GOGGLES PER OSHA EYE-AND-FACE PROTECTION REGULATIONS (29 CFR 1910.133). CONTACT LENSES ARE NOT EYE PROTECTIVE DEVICES. APPROPRIATE EYE PROTECTION MUST BE WORN INSTEAD OF, OR IN COJUNCTION WITH CONTACT LENSES.

Skin: WEAR PROTECTIVE GLOVES, BOOTS, APRONS, AND GAUNTLETS AS NEED TO PREVENT PROLONGED OR REPEATED SKIN CONTACT.

Respiratory: SEEK PROFESSIONAL ADVICE PRIOR TO RESPIRATOR SELECTION AND USE. FOLLOW OSHA RESPIRATOR REGULATIONS (29 CFR 1910.134) AND, IF NECESSARY, WEAR A MSHA/NIOSH-APPROVED RESPIRATOR. SELECT RESPIRATOR BASED ON ITS SUITABILITY TO PROVIDE ADEQUATE WORKER PROTECTION FOR GIVEN WORKING CONDITIONS, LEVEL OF AIRBORNE CONTAMINATION AND PRESENCE OF SUFFICIENT OXYGEN.
SELF-CONTAINED, POSITIVE-PRESSURE BREATHING APPARATUS WHEN USED IN CONFINED OR ENCLOSED SPACE OR WHEN EXPOSURE LIMITS ARE EXCEEDED OR HYDROGEN SULFIDE IS UNKNOWN OR EXCEEDS 20 PPM. ORGANIC VAPOR RESPIRATORS CAN BE USED WITH GOOD VENTILATION WHEN ORGANIC VAPORS ARE LESS THAN 1000 PPM OR TEN TIMES PERMISSIBLE EXPOSURE LIMIT, WHICH EVER IS LESS. FOR EMERGENCY OR NONROUTINE OPERATIONS (CLEANING SPILLS, REACTOR VESSELS, OR STORAGE TANKS), WEAR SCBA.
WARNING! AIR PURIFYING RESPIRATORS DO NOT PROTECT WORKERS IN OXYGEN-DEFICIENT ATMOSPHERES. IF RESPIRATORS ARE USED, OSHA REQUIRES A WRITTEN RESPIRATORY PROTECTION PROGRAM THAT INCLUDES: PROCEDURES FOR SELECTING RESPIRATORS; MEDICAL EVALUATION; FIT TESTING; USE IN ROUTINE AND EMERGENCY SITUATIONS; CLEANING, DISINFECTING, STORING, INSPECTING, REPAIRING, DISCARDING AND MAINTAINING RESPIRATOR; ADEQUATE AIR QUALITY, QUANTITY AND FLOW; TRAINING IN RESPIRATORY HAZARDS; TRAINING IN USE OF RESPIRATORS; EVALUATION OF EFFECTIVENESS OF RESPIRATORY PROGRAM.

Engineering: PROVIDE GENERAL OR LOCAL EXHAUST VENTILATION SYSTEMS TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW OSHA PELS (SEC. 2). LOCAL EXHAUST VENTILATION IS PREFERRED BECAUSE IT PREVENTS CONTAMINANT DISPERSION INTO THE WORK AREA BY CONTROLLING IT AT ITS SOURCE.

Other: SAFETY STATIONS: MAKE EMERGENCY EYEWASH STATIONS, SAFETY/QUICK-DRENCH SHOWERS, AND WASHING FACILITIES AVAILABLE IN WORK AREA.
 CONTAMINATED EQUIPMENT: SEPERATE CONTAMINATED WORK CLOTHES FROM STREET CLOTHES. LAUNDER BEFORE REUSE. REMOVE THIS MATERIAL FROM YOUR SHOES AND CLEAN PERSONAL PROTECTIVE EQUIPMENT.
 COMMENTS: NEVER EAT, DRINK, OR SMOKE IN WORK AREAS. PARACTICE GOOD PERSONAL HYGIENE AFTER USING THIS MATERIAL, ESPECIALLY BEFORE EATING, DRINKING, OR SMOKING.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: BROWN-BLACK LIQUID
Boiling Point: 300°F
Freezing Point: NO DATA
pH: N/A
Solubility in Water: INSOLUBLE
Specific Gravity: 0.87-0.98 (H²O=1, @ 4EC)
Vapor Pressure: <50 PSIA
Vapor Density: >4.5 (AIR = 1)
Physical State: LIQUID
Volatile Content: <350 g/L
Other: EVAPORATION RATE: 70

X. STABILITY AND REACTIVITY

Stability: THIS PRODUCT IS STABLE AT ROOM TEMPERATURE IN CLOSED CONTAINERS UNDER NORMAL STORAGE AND HANDLING CONDITIONS.

Hazardous Polymerization: HAZARDOUS POLYMERIZATION CANNOT OCCUR.

Hazardous Decomposition Products: PRIMARY DECOMPOSITION PRODUCTS ARE CARBON MONOXIDE, CARBON DIOXIDE, AND WATER. COMBUSTION PRODUCTS MAY INCLUDE SULFUR OXIDES AND HYDROGEN SULFIDE.

Incompatible Products: STRONG OXIDIZING AGENTS; WATER.

Conditions To Avoid: EXCESS HEAT, SPARKS AND OPEN FLAMES.

XI. TOXICOLOGICAL INFORMATION

Other: EYE EFFECTS: VAPORS MAY CAUSE A SLIGHT SMARTING OF THE EYES OR RESPIRATORY SYSTEM IF PRESENT IN HIGH CONCENTRATIONS.
 SKIN EFFECTS: CAUSES SMARTING OF THE SKIN AND FIRST-DEGREE BURNS ON SHORT EXPOSURE. THE EFFECT IS TEMPORARY.
 ACUTE INHALATION EFFECTS: SHORT TERM INHALATION LIMITS (STODDARD SOLVENT): 2500 MG/M³ FOR 60 MIN.
 CARCINOGENICITY: (ASPHALT OXIDIZED) BASED ON A 2000 REVIEW OF HEALTH EFFECTS LITERATURE, NIOSH CONCLUDED THAT ROOFING ASPHALT FUMES ARE POTENTIAL OCCUPATIONAL CARCINOGEN.
 TERATOGENICITY: NO DATA.
 MUTAGENICITY: NO DATA.
 CHRONIC EFFECTS: PROLONGED AND REPEATED SKIN CONTACT MAY CAUSE DERMATITIS, PHOTOSENSITIZATION, AND MELANOSIS. EVIDENCE FROM ANIMAL STUDIES SUGGEST THAT ASPHALT LEFT ON THE SKIN FOR LONG PERIODS OF TIME MAY RESULT IN LOCAL CARCINOMAS, BUT THERE HAVE

BEEN NO REPORTS OF SUCH EFFECTS ON HUMAN SKIN THAT CAN BE ATTRIBUTED TO ASPHALT ALONE.

XII. ECOLOGICAL INFORMATION

Environmental Fate and Distribution: NO DATA
Persistence and Degradation: NO DATA

XIII. DISPOSAL CONSIDERATIONS

Disposal Method: DISPOSAL: CONTACT YOUR SUPPLIER OR A LICENSED CONTRACTOR FOR DETAILED RECOMMENDATIONS. FOLLOW APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
 DISPOSAL REGULATORY REQUIREMENTS: SOLIDIFIED WASTE MATERIAL SHOULD NOT BE A HAZARDOUS WASTE UNDER RCRA GUIDELINES. FOLLOW FEDERAL, STATE, AND LOCAL REGULATIONS FOR DISPOSAL OF SOLID WASTE.
 CONTAINER CLEANING AND DISPOSAL: RECOMMEND USING A NON-HAZARDOUS SOLVENT TO REMOVE THE PRODUCT. FOLLOW FEDERAL, STATE, AND LOCAL REGULATIONS FOR DISPOSAL OF THE WASTE MATERIAL, REGARDLESS OF ITS WASTE CLASSIFICATION.

XIV. TRANSPORT INFORMATION

Proper Shipping Name: TAR, LIQUID INCLUDING ROAD ASPHALT AND OILS, BITUMEN, AND CUTBACKS
Hazard Class Number and Description: 3
UN Identification Number: UN1999
Packing Group: III
Other: LABEL: FLAMMABLE LIQUID
 SPECIAL PROVISIONS (172.102): 149, B13, 1B2, T3, TP3, TP29
 PACKAGING AUTHORIZATIONS: A) EXCEPTIONS: 150; B)NON-BULK PACKAGING: 202; C) BULK PACKAGING: 173.242
Passenger and Cargo Aircraft: 5 L
Cargo Aircraft Only: 60 L
Stowage and Segregation: B

XV. REGULATORY INFORMATION

EPA Sara Title III Chemical Listings: SARA 311/312 CODES: ACUTE: YES; CHRONIC: YES; FIRE: YES; PRESSURE: NO; REACTIVITY: NO
 SARA TOXIC CHEMICAL: NOT LISTED
 SARA EHS (EXTREMELY HAZARDOUS SUBSTANCE) (40 CFR 355): NOT LISTED
California: PETROLEUM FUMES
Massachusetts: ASPHALT FUMES
New Jersey: ASPHALT FUMES
Pennsylvania: ASPHALT
Other: EPA REGULATIONS:
 RCRA HAZARDOUS WASTE NUMBER: NOT LISTED; RCRA HAZARDOUS WASTE CLASSIFICATION (40 CFR 261): SOLIDIFIED WASTE MATERIAL SHOULD NOT BE

A HAZARDOUS WASTE. HOWEVER, WASTE MATERIAL SHOULD BE TESTED FOR THE CHARACTERISTIC OF IGNITIBILITY.

CERCLA: NOT LISTED; CERCLA REPORTABLE QUANTITY (RQ): THIS MATERIAL IS NOT LISTED HAZARDOUS SUBSTANCE AND DOES NOT HAVE A REPORTABLE QUANTITY. HOWEVER, IF SPILLED INTO WATERS OF THE U.S., IT MAY BE REPORTABLE UNDER THE CLEAN WATER ACT.

OSHA REGULATIONS: AIR CONTAMINANT (29 CFR 1910.1000, TABLE Z-1, Z-1-A): SEE TABLE IN SECTION 2.; OSHA SPECIFICALLY REGULATED SUBSTANCE: NO.

XVI. OTHER INFORMATION

Other: ADDITIONAL HAZARD RATING SYSTEMS: NAS HAZARDS RATING FOR BULK WATER TRANSPORTATION OF ASPHALT: FIRE-1, HEALTH-2, WATER POLLUTION-1, REACTIVITY-0

WARRANTY INFORMATION

THIS INFORMATION IS OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EXPRESSED OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.