

AC-20-5TR MATERIAL SAFETY DATA SHEET



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NFPA HAZARD IDENTIFICATION	DEGREE OF HAZARD	HAZARD RATINGS
	HEALTH: 1 FIRE: 1 REACTIVITY: 0	0= LEAST 1= SLIGHT 2= MODERATE 3= HIGH 4= EXTREME

SECTION 1 - COMPONENT DATA	
PRODUCT NAME	AC-20-5TR
CHEMICAL NAME	PETROLEUM ASPHALT (BITUMEN)
CHEMICAL FAMILY	PETROLEUM HYDROCARBON

SECTION 2 - PHYSICAL DATA	
BOILING POINT, °F:	>900
SPECIFIC GRAVITY:	0.9-1.10
VAPOR PRESSURE (mm HG):	*ND
MELTING POINT, °F:	115-145
SOLUBILITY IN WATER:	NEGLIGIBLE
VAPOR DENSITY (AIR=1):	*ND
EVAPORATION RATE (N-BUTYL) ACETATE =1):	*ND
PH:	NEUTRAL
APPEARANCE AND ODOR:	BLACK VISCOUS SEMISOLID. ASPHALT ODOR. SLIGHT RUBBER TIRE ODOR POSSIBLE.

HAZARDOUS INGREDIENTS		
COMPONENT	CAS NUMBER	PERCENT
Asphalt	8052-42-4	91-95
Reprocessed Ground Rubber	NR: 9003-31-0	2-4.5
	SBR: 9003-55-8	
Carbon Black	1333-86-4	1.0-2.40
Process Oil	64742-04-7	0.50-1.20
Zinc Oxide	1314-13-2	0.05-0.30
Sulfur	7704-34-9	0.05-0.30
Stearic Acid	57-11-4	0.05-0.30

*NA=NOT APPLICABLE **ND=NOT DETERMINED



SECTION 3 - FIRE AND EXPLOSION HAZARDS	
FLASH POINT AND METHOD:	>550 °F (COC)
FLAMMABLE LIMITS: % VOLUME IN AIR	LOWER: *ND UPPER: *ND
EXTINGUISHING MEDIA	DRY CHEMICAL OR FOAM PREFERRED. WATER FOG MAY BE USED ON FLAT SURFACES SUCH AS ROADS.
SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS	DO NOT USE WATER ON ASPHALT FIRE IN TANK OR OTHER CONTAINERS SINCE IT MAY CAUSE VIOLENT ERUPTION AND SPREADING OF BURNING ASPHALT. MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.
UNUSUAL FIRE AND EXPLOSION HAZARD	DO NOT HEAT ABOVE FLASH POINT. HOT ASPHALT MAY IGNITE FLAMMABLE MIXTURES ON CONTACT. SULFUR OXIDES AND HYDROGEN SULFIDE, BOTH OF WHICH ARE TOXIC, MAY BE RELEASED UPON COMBUSTION. H ₂ S VAPORS ARE HEAVIER THAN AIR, MAY ACCUMULATE IN LOW AREAS AND TRAVEL ALONG THE GROUND TO A REMOTE IGNITION SOURCE; IF IGNITED WILL FLASH BACK TO ORIGINAL CONTAINER.

SECTION 4 - REACTIVITY DATA	
STABILITY:	STABLE
HAZARDOUS POLYMERIZATION:	WILL NOT OCCUR
CONDITIONS AND MATERIALS TO AVOID	DO NOT ALLOW MOLTEN PRODUCT TO CONTACT WATER OR LIQUIDS AS THIS CAN CAUSE VIOLENT ERUPTIONS, SPLATTER HOT MATERIAL OR IGNITE FLAMMABLE MATERIALS.
HAZARDOUS DECOMPOSITION PRODUCTS	THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID, PARTICULATES AND GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE, HYDROGEN SULFIDE AND OTHER UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.

SECTION 5 - HEALTH HAZARD DATA	
THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATIONS STANDARD (29 CFR 1910.1200)	
EYE CONTACT	BASED ON ESSENTIALLY SIMILAR PRODUCT TESTING, PRODUCT IS PRESUMED TO BE MINIMALLY IRRITATING TO THE EYES. CONTACT WITH PRODUCT AT ELEVATED TEMPERATURES CAN RESULT IN THERMAL BURNS.
SKIN CONTACT	BASED ON ESSENTIALLY SIMILAR PRODUCT TESTING, PRODUCT IS PRESUMED TO BE MINIMALLY IRRITATING TO THE SKIN. CONTACT WITH PRODUCT AT ELEVATED TEMPERATURES CAN RESULT IN THERMAL BURNS.
INHALATION	VAPORS MAY CAUSE IRRITATION TO NOSE, THROAT, AND RESPIRATORY TRACT, HIGH VAPOR CONCENTRATIONS MAY RESULT IN CNS DEPRESSION.

*NA=NOT APPLICABLE **ND=NOT DETERMINED



WARNING: HYDROGEN SULFIDE (H₂S) AND OTHER HAZARDOUS VAPORS MAY EVOLVE AND COLLECT IN THE HEADSPACE OF STORAGE TANKS OR OTHER ENCLOSED VESSELS. HYDROGEN SULFIDE IS AN EXTREMELY FLAMMABLE, TOXIC GAS. IN THE ABSENCE OF H₂S, INHALATION OF VAPORS, MISTS OR FUMES (GENERATED AT HIGH TEMPERATURES) MAY CAUSE IRRITATION TO THE NOSE, THROAT, AND RESPIRATORY TRACT.

BREATHING ASPHALT AEROSOL OR ASPHALT SMOKE FOR PROTRACTED PERIODS OF TIME HAS PRODUCED DAMAGE TO THE LUNGS OF MICE. AMONG THE CHANGES OBSERVED WERE BRONCHITIS, PNEUMONITIS AND ABSCESS FORMATION.

ASPHALT FUME CONDENSATES HAVE BEEN SHOWN TO PRODUCE A TUMOROGENIC RESPONSE WHEN REPEATEDLY APPLIED TO THE SKIN OF EXPERIMENTAL ANIMALS. THE RELEVANCE OF THIS DATA TO HUMANS IS NOT KNOWN AT THIS TIME.

H₂S IS IRRITATING TO THE EYES AND RESPIRATORY TRACT AT LOW CONCENTRATIONS. 0.02 PPM-ODOR THRESHOLD. 10 PPM-EYE IRRITATION. 100 PPM-HEADACHE, DIZZINESS, VOMITING, COUGHING. 200-300 PPM-EYE INFLAMMATION, RESPIRATORY TRACT IRRITATION AFTER 1 HOUR EXPOSURE. 300-700 PPM-LOSS OF CONSCIOUSNESS OR POSSIBLE DEATH IN 30 MIN. TO AN HOUR. 700-900 PPM-RAPID LOSS OF CONSCIOUSNESS; DEATH CAN RESULT. >1000 PPM-UNCONSCIOUSNESS IN SECONDS; DEATH IN MINUTES UNLESS VICTIM IS REMOVED FROM CONTAMINATED AREA AND BREATHING IS RESTORED. DO NOT DEPEND ON SENSE OF SMELL FOR WARNING. H₂S CAUSES RAPID OLFACTORY FATIGUE (DEADENS SENSE OF SMELL). THERE IS NO EVIDENCE THAT H₂S WILL ACCUMULATE IN THE BODY TISSUE AFTER REPEATED EXPOSURE.

SIGNS AND SYMPTOMS OF OVEREXPOSURE	IRRITATION AS NOTED ABOVE.				
AGGRAVATED MEDICAL CONDITIONS	PREEXISTING EYE, SKIN, AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.				
HAZARDOUS INGREDIENT: ASPHALT	CARCINOGENICITY				
NTP LISTED	NO				
IARC LISTED	YES				
OSHA REGULATED	NO				
OCCUPATIONAL EXPOSURE LIMITS:					
	OSHA		ACGIH		
COMPONENT	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	OTHER
Asphalt			5 Mg/M ³		
Reprocessed Rubber	15 mg/m ^{3*}		10 mg/m ^{3**}		
Carbon Black	3.5 mg/m ³		3.5 mg/m ³		
Process Oil	5.0 mg/m ^{3**}		NA		
Zinc Oxide	5.0 mg/m ^{3**}		10 mg/m ³		
Sulfur	NA		10 mg/m ^{3***}		
Stearic Acid	NA		NA		

*=particulates not otherwise classified (PNOC), 5mg/m³ respirable fraction

** = total dust , 5mg/m³ respirable fraction

***= ACGIH TLV for Nuisance Dust

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SECTION 6 - EMERGENCY AND FIRST AID PROCEDURES	
EYE CONTACT	FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.
SKIN CONTACT	IF HOT ASPHALT STRIKES THE SKIN, DRENCH OR IMMERSE THE AREA IN WATER TO ASSIST COOLING. IF AVAILABLE, APPLY ICED WATER OR ICE PACKS TO THE BURNED AREA. (DO NOT USE ICED WATER OR COLD PACKS IF THE BURNED AREA COVERS MORE THAN 10% OF THE BODY, AS THIS MAY CONTRIBUTE TO SHOCK.) DO NOT TRY TO REMOVE ASPHALT FROM A BURN AFTER IT HAS COOLED. SEEK MEDICAL ATTENTION. IF COOL ASPHALT CONTACTS THE SKIN, WASH THE AREA WITH HOT SOAPY WATER. USE OF A WATERLESS HAND CLEANER WILL HELP TO REMOVE THE ASPHALT..
INHALATION	REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. BEWARE THAT H ₂ S MAY BE PRESENT IF VICTIM IS UNCONSCIOUS. USE BREATHING PROTECTION BEFORE REMOVING VICTIM TO FRESH AIR. GET MEDICAL ATTENTION.
INGESTION	DO NOT INDUCE VOMITING. IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES OF PRODUCT ARE INGESTED. HOWEVER, GET MEDICAL ADVICE.

SECTION 7 - PERSONAL HEALTH PROTECTION INFORMATION	
PROTECTIVE CLOTHING	AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES, GLOVES, APRON AND OTHER PROTECTIVE CLOTHING AS REQUIRED TO PREVENT CONTACT. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN.
RESPIRATORY PROTECTION	AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS USE A NIOSH/MSHA APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.
ADDITIONAL PROTECTIVE MEASURES	USE IN A WELL VENTILATED AREA TO CONTROL VAPOR CONCENTRATION. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA, THEN LAUNDRER BEFORE REUSING.

SECTION 8 - SPILL, LEAK & DISPOSAL PROCEDURES	
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	CONSULT HEALTH HAZARD DATA IN SECTION 5, PERSONAL HEALTH PROTECTION INFORMATION IN SECTION 7, FIRE & EXPLOSION DATA IN SECTION 3, AND REACTIVITY DATA IN SECTION 4. NOTIFY APPROPRIATE AUTHORITIES OF SPILL. CONTAIN SPILL IMMEDIATELY. DO NOT ALLOW SPILL TO ENTER SEWERS OR WATERCOURSES. REMOVE ALL SOURCES OF IGNITION. ABSORB WITH APPROPRIATE INERT MATERIAL SUCH AS SAND, CLAY, ETC. LARGE SPILLS MAY BE PICKED UP USING VACUUM PUMPS, SHOVELS, BUCKETS OR OTHER MEANS AND PLACED IN DRUMS OR OTHER SUITABLE CONTAINERS.
WASTE DISPOSAL METHOD	ALL DISPOSALS MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS. THE MATERIAL, IF SPILLED OR DISCARDED, MAY BE A REGULATED WASTE. REFER TO STATE AND LOCAL REGULATIONS. CAUTION! IF REGULATED SOLVENTS ARE USED TO CLEAN UP SPILLED MATERIAL, THE RESULTING WASTE MIXTURE MAY BE REGULATED. DEPARTMENT OF TRANSPORTATION (DOT) REGULATIONS MAY APPLY FOR TRANSPORTING THIS MATERIAL WHEN SPILLED. WASTE MATERIAL MAY BE LANDFILLED OR INCINERATED AT AN APPROVED FACILITY. MATERIALS SHOULD BE RECYCLED IF POSSIBLE.

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SECTION 9 - SPECIAL PRECAUTIONS/ADDITIONAL INFORMATION

WHEN ASPHALTIC PRODUCTS ARE HEATED, THEY OFTEN GIVE OFF SMALL AMOUNTS OF HYDROGEN SULFIDE. HYDROGEN SULFIDE IS AN EXTREMELY FLAMMABLE, HIGHLY TOXIC GAS. BREATHING HYDROGEN SULFIDE MUST BE AVOIDED. MINIMIZE BREATHING OF VAPORS, FUMES, OR MIST; WHEN POSSIBLE, USE VENTILATION OR WORK UPWIND OF SOURCE OF VAPORS, FUMES AND MIST. LAUNDRY CONTAMINATED CLOTHING BEFORE USING. DISCARD LEATHER GOODS WHEN THEY CANNOT BE DECONTAMINATED. OBSERVE GOOD PERSONAL HYGIENE. WASH THOROUGHLY AFTER WORKING WITH ASPHALT AND BEFORE EATING OR SMOKING.

D.O.T. CLASSIFICATION:	CLASS 9 (MISCELLANEOUS HAZARDOUS MATERIAL), PG III
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D.O.T. PROPER SHIPPING NAME:	ELEVATED TEMPERATURE MATERIAL, LIQUID, N.O.S. (PETROLEUM ASPHALT)
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OTHER REQUIREMENTS:	NA 9259. NOT REGULATED BY D.O.T. IF IN A CONTAINER OF 119 GALLON CAPACITY OR LESS.
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THE COMPONENTS OF THE PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, MARTIN ASPHALT COMPANY MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. THIS INFORMATION AND PRODUCT IS FURNISHED ON THE CONDITION THAT THE PERSON RECEIVING THEM SHALL MAKE THEIR OWN DETERMINATION AS TO THE SUITABILITY OF THE PRODUCT FOR THEIR PARTICULAR PURPOSE AND ON THE CONDITION THAT THEY ASSUME THE RISK OF USE THEREOF.

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