

MATERIAL SAFETY DATA SHEET

REV. DATE 02/01/05

QUICK IDENTIFIER: HOT PIPE COATING

MANUFACTURER'S NAME: R & D SERVICES, INC.

ADDRESS: P.O. BOX 731 SEAGOVILLE, TX 75159

EMERGENCY 24 HR. TELEPHONE NUMBER: (214) 325-1042

OTHER INFORMATION CALLS: (972) 989 - 2085

SECTION 1 - IDENTIFY

TRADE NAME AND SYNONYMS: RDHD/650 (R&D SERVICES Hot Dip)

C.A.S. NUMBER: NONE, MIXTURE

CHEMICAL NAME: SYNTHETIC ASPHALT

CHEMICAL FAMILY: PETROLEUM HYDROCARBON

FORMULA: VARIABLE MIXTURE

SECTION 2 - HAZARDOUS INGREDIENTS

PRINCIPAL HAZARDOUS COMPONENTS (CHEMICAL & COMMON NAMES)	%	THRESHOLD LIMIT VALUE (UNITS)
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ASPHALT, PETROLEUM	90 - 100	5.00 mg/m <sup>3</sup>
PETROLEUM DISTILLATE	0 -10	

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

BOILING POINT: .2 n/a

SPECIFIC GRAVITY (H20-1.00) ; 97 -102

VAPOR PRESSURE (mmHG): N/D

VAPOR DENSITY (AIR @ 1): > 1

PERCENT VOLATILE BY VOLUME:

EVAP. RATE (H20 = 1.00): 1

APPEARANCE AND ODOR: LOW VISCOSITY, SMOOTH BLACK LIQUID, SLIGHT PETROLEUM ODOR

SECTION 4 - FIRE AND EXPLOSION

FLASH POINT: 650° F

AUTO IGNITION TEMP: N/A

FLAMMABLE LIMITS IN AIR % BY VOLUME: LOWER: N/A UPPER: N/A

EXTINGUISHER MEDIA: ASPHALT STATE: SMALL FIRES USE DRY CHEMICAL, CO2, HALON, WATER SPRAY OR STANDARD FOAM. LARGE FIRES USE WATER SPRAY, FOG OR STANDARD FOAM.

(1987 EMERGENCY RESPONSE GUIDEBOOK,

D.O.T. P5800.4 GUIDE NO. 27)

SPECIAL FIRE FIGHTING PROCEDURES:

NOTE, IN ASPHALT STATE: MOVE VESSEL FROM FIRE AREA IF YOU CAN DO IT WITHOUT RISK. COOL CONTAINERS THAT ARE EXPOSED TO FLAMES WITH WATER FROM THE SIDE UNTIL WELL AFTER THE FIRE IS OUT. STAY AWAY FROM ENDS OF TANK. FOR MASSIVE FIRE IN CARGO AREA, USE UNMANNED HOSE HOLDER OR MONITOR NOZZLES; IF THIS IS IMPOSSIBLE, WITHDRAW FROM AREA AND LET FIRE BURN. WITHDRAW IMMEDIATELY IN CASE OF RISING SOUND FROM VENTING SAFETY DEVICE OR ANY DISCOLORATION OF TANK DUE TO FIRE.

(1987 EMERGENCY RESPONSE GUIDEBOOK

D.O.T. P5800.4 GUIDE NO. 27)

SECTION 5 - PHYSICAL HAZARDS

MATERIAL IS: STABLE

CONDITIONS TO AVOID: NONE

INCOMPATIBILITY (MATERIALS TO AVOID): NONE

HAZARDOUS POLYMERIZATION WILL: NOT OCCUR

CONDITIONS TO AVOID: NONE

SECTION 6 - HEALTH HAZARDS

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN.

ASPHALT EMULSIONS HAVE NOT BEEN INVESTIGATED AS POSSIBLE POSSIBLE CARCINOGENS.

PETROLEUM ASPHALT WOULD BE AS FOLLOWS:

NAT. TOXICOLOGY PROGRAM NO

OSHA  
I.A.R.C.

YES  
\*UNDETERMINED

\*EXPLANATION: IARC MONOGRAPHS - JAN. 1985 - THE STUDY INDICATES THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY IN ANIMALS FROM EXPOSURE TO EXTRACTS OF STEAM-REFINED BITUMENS, AIR-REFINED BITUMENS AND MIXTURES OF STEAM-REFINED AND AIR-REFINED BITUMENS. DUE TO INADEQUATE EVIDENCE IN HUMANS, BUT SUFFICIENT EVIDENCE IN ANIMALS, BITUMEN IS CONSIDERED BY OSHA AS IF IT PRESENTS A CARCINOGENIC RISK TO HUMANS. THERE IS INADEQUATE EVIDENCE THAT BITUMENS ALONE ARE CARCINOGENIC TO HUMANS.

**OSHA PERMISSIBLE EXPOSURE LIMIT:** ASPHALT FUMES: 5mg/m3 MAX CEILING)

**ACGIH THRESHOLD LIMIT VALUE:** ASPHALT FUMES: 5mg/m3 TWA)

**OTHER EXPOSURE LIMIT USED:** NONE

**ROUTES OF EXPOSURE:** PRIMARY - SKIN CONTACT, SECONDARY - INGESTION OR INHALATION

**SIGNS AND SYMPTOMS OF EXPOSURE:** SKIN - CONTACT WITH HOT PRODUCT MAY CAUSE THERMAL BURNS. PROLONGED OR REPEATED CONTACT WITH COOL PRODUCT MAY CAUSE IRRITATION. ASPHALT EMULSIONS HAVE NOT BEEN INVESTIGATED FOR POSSIBLE CARCINOGENICITY.

INGESTION - EMULSIONS MAY CAUSE NAUSEA AND IRRITATION OF GASTROINTESTINAL TRACT.

INHALATION - EXCESSIVE EXPOSURE TO FUMES, VAPORS OR MISTS MAY CAUSE SOME RESPIRATORY DISCOMFORT OF THE MUCOUS MEMBRANES. ASPHALT, WHEN HEATED, RELEASES VARIOUS CONCENTRATIONS OF HYDROGEN SULFIDE (H<sub>2</sub>S) GAS. H<sub>2</sub>S IS AN EXTREMELY TOXIC AND FLAMMABLE GAS THAT AT LOW CONCENTRATIONS IS IRRITATING TO THE RESPIRATORY TRACT AND HAS A ROTTEN EGG ODOR. ODOR CAN NOT BE RELIED ON AS A MEANS OF DETECTION BECAUSE AT HIGHER CONCENTRATIONS OF 500 - 1000 ppm MAY LEAD TO UNCONSCIOUS, RESPIRATORY PARALYSIS AND DEATH.

**EMERGENCY AND FIRST AID PROCEDURES:** INHALATION - IF OVEREXPOSURE OCCURS, REMOVE INDIVIDUAL TO FRESH AIR. IF DISCOMFORT CONTINUES, SEEK MEDICAL ATTENTION.

**EYES -** FLUSH EYES IMMEDIATELY WITH COPIOUS AMOUNTS OF WATER AT LEAST 15 MINUTES OCCASIONALLY LIFTING THE UPPER AND LOWER EYE LIDS. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN -** HOT PRODUCT SHOULD BE COOLED WITH WATER. CLEAN SKIN WATERLESS TYPE HAND CLEANER FOLLOWED BY SOAP AND WATER. IF IRRITATION OR BURN DEVELOPS, SEEK MEDICAL ATTENTION. COOL PRODUCT MAY BE CLEANED WITH WATERLESS TYPE HAND CLEANER.

**INGESTION -** IF MATERIAL IS SWALLOWED, DO NOT INDUCE VOMITING. TREAT SYMPTOMATICALLY AND GET MEDICAL ATTENTION.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** UNKNOWN

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## SECTION 7 - SPECIAL PROTECTION INFORMATION

### RESPIRATORY

**PROTECTION:** NORMALLY NOT NEEDED, BUT IF CONDITIONS WARRANT USE ORGANIC VAPOR RESPIRATORS.

**VENTILATION LOCAL EXHAUST:** AS NEEDED TO REMOVE MISTS OR VAPORS.

**PROTECTIVE GLOVES:** IMPERVIOUS COATING

**EYE PROTECTION:** CHEMICAL GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** APPROPRIATE CLOTHING TO PREVENT REPEATED OR PROLONGED CONTACT WITH SKIN.

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## SECTION 8 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** AVOID HEATED PRODUCT FUMES

**OTHER PRECAUTIONS:** OBSERVE GOOD PERSONAL HYGIENE. LAUNDRY CONTAMINATED CLOTHES BEFORE REUSE. DO NOT WEAR LEATHER SHOES OR BOOTS THAT HAVE BECOME SATURATED WITH PRODUCT.

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** CREATE DIKES OR PONDS AS SOON AS POSSIBLE. USE EARTH, SAWDUST OR SAND TO MAKE DIKES OR TO USE AS ABSORBENT. UPON ABSORPTION, MATERIAL WILL REVERT TO ASPHALT STATE AND CAN BE REMOVED WITH ABSORPTION MATERIAL.

**WASTE DISPOSAL METHODS:** EMULSION CAN BE MIXED WITH ANY STABILIZING MATTER (e.g., ROCK, GRAVEL OR SAND) IN ORDER TO CHANGE ITS STATE FROM A LIQUID INTO A SOLID. THIS MATERIAL CAN THEN BE DISPOSED OF AT AN APPROVED LANDFILL.

**EXPLANATION OF ABBREVIATIONS:** N/D - NOT DETERMINED  
N/A - NOT APPLICABLE  
TLV - THRESHOLD LIMIT VALUE  
TWA - TIME WEIGHTED AVERAGE

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