

M A T E R I A L S A F E T Y D A T A S H E E T

CRACK & JOINT REPAIR

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MANUFACTURER: SIERRA CORP/TK PRODUCTS
 ADDRESS : 11400 WEST 47TH STREET
 MINNETONKA, MN 55343

EMERGENCY PHONE: 1-800-424-9300
 INFORMATION PHONE: (952)938-7223

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NAME OF PREPARER : Safety Director

===== SECTION 1 - PRODUCT IDENTIFICATION =====

PRODUCT NAME: CRACK & JOINT REPAIR
 PRODUCT CODE: TK-9020

HMIS CODES: H F R P
 2*2 1 I

===== SECTION 2 - COMPOSITION/INGREDIENT INFORMATION =====

COMPONENT	CAS NUMBER	WEIGHT PERCENT	EXPOSURE LIMITS		
			OSHA PEL	ACGIH TLV	OTHER
+* 4,4' DIPHENYLMETHANE DIISOCYANATE	101-68-8	13.	0.02 ppm	0.005 ppm	
+* MDI MIXED ISOMERS	26447-40-5	8.74791	NOT ESTABLISHED		
TITANIUM DIOXIDE	13463-67-7	3.9	10 mg/m3	10 mg/m3	
* AROMATIC PETROLEUM DISTILLATES	64742-95-6	3.	100 PPM	NA	
+ TRIMETHYLBENZENE	95-63-6	2.4	25 PPM	25 PPM	
SILICON DIOXIDE	N/A	1.1	6 MG/M3	3 MG/M3	

* Indicates chemical(s) that are chronic health hazards. Refer to section 3 for further information.
 + Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

===== SECTION 3 - HEALTH HAZARDS IDENTIFICATION =====

PRIMARY ROUTES OF EXPOSURE:

Skin contact, eye contact, and inhalation.

EFFECTS OF ACUTE EXPOSURE:

EYES: Contact with eyes may cause irritation including burning, watering, and redness.

SKIN: Contact may cause mild skin irritation including redness, burning, and drying and cracking of skin. Continued exposure may develop into dermatitis. Solvents can penetrate the skin and cause systematic effects similar to those under inhalation symptoms. Isocyanates react with skin protein and moisture and can cause irritation. Prolonged contact with isocyanates can cause swelling, rash, scaling or blistering. In those who have developed skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material or even as a result of vapor only exposure.

INHALATION: High vapor concentrations are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, asthma, drowsiness, unconsciousness, and other central nervous system effects, and possibly death.

INGESTION: Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Small amounts aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Keep all sources of ignition and hot metal surfaces away from spill/release. Use explosion-proof non-sparking equipment. Stay upwind from area. Isolate danger and keep unauthorized personnel out. Stop source of release if possible with minimal risk. Wear appropriate protective equipment including respiratory protection. Prevent spill from entering sewers, storm drains, or any other unauthorized treatment drainage systems and natural waterways by diking ahead of the spill. Spilled material may be absorbed with an appropriate spill kit. Notify fire authorities and appropriate federal, state, and local agencies if required.

===== SECTION 7 - HANDLING AND STORAGE =====**HANDLING INFORMATION:**

Employees who come in contact with this material must be trained in accordance to 1910.1200 of the Hazard Communication Standard.

Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel to another. Static charge can accumulate by flow or agitation. Ignition can occur by static discharge. The use of explosion proof equipment is recommended and may be required. The use of respiratory protection is advised when concentrations exceed any established exposure limits and in confined spaces. Use good industrial and personal hygiene practice, wash thoroughly after handling, and do not wear contaminated clothing.

STORAGE INFORMATION:

Keep containers tightly closed. Use and store material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post "No smoking or open flame" sign. Store only in approved containers. Keep away from incompatible materials (see section 10). Protect containers against physical damage. Indoor storage should meet OSHA standards and appropriate fire codes.

OTHER PRECAUTIONS:

"Empty" containers retain residue, liquid and vapor, and may be dangerous. Do not cut, weld, pressurize, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause severe personal injury or death. All containers should be disposed of in an environmentally safe manner in accordance with all government regulations.

===== SECTION 8 - CONTROL MEASURES/PERSONAL PROTECTION =====**RESPIRATORY PROTECTION:**

Engineering or administrative controls in conjunction with a respirator program is recommended to reduce exposure, and as a part of plant hygiene. A respirator that is recommended or approved for use in isocyanate-containing environments (air-purifying or fresh air-supplied) may be necessary for spray applications or other situations such as high temperature use which may produce inhalation exposures. A air-supplied respirator is recommended. Before an air-purifying respirator can be used, air monitoring must be performed to measure airborne concentrations if isocyanates.

An air-purifying (combination organic vapor and particulate) proven by test to be effective in isocyanate-containing spray environments can be used when ALL of the following conditions are met: Airborne isocyanate monomer concentrations are known to be below 0.05 ppm averaged over 8 hours; and airborne polyisocyanate concentrations are below 5 mg/m³ averaged over 8 hours.

Use NIOSH certified end of service life indicator or a change schedule based upon objective information or data to ensure that cartridges are replaced before the end of their service life. In addition, prefilters should be changed whenever breathing resistance increases due to particulate buildup.

VENTILATION:

If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used.

PROTECTIVE GLOVES:

Prevent prolonged or repeated contact by wearing gloves impervious to solvents and other appropriate protective clothing. Launder contaminated clothing before reuse.

EYE PROTECTION:

Wear safety glasses to reduce eye contact potential. Chemical safety goggles (ANSI Z87.1 or approved equivalent) are appropriate if splashing is likely. Eye washes must be available where eye contact can occur.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

A source of clean water should be available for flushing eyes and skin. Showers should be available if larger spills are possible.

WORK/HYGIENIC PRACTICES:

Efforts should be made to minimize contact and spills. Always wash hands before eating, drinking, or smoking. Clean up spills promptly. Follow OSHA and company guidelines.

===== SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES =====

PHYSICAL STATE: Liquid	COLOR: Various colors
ODOR: Hydrocarbon odor	SOLUBILITY IN WATER: Insoluble/Negligible
SPECIFIC GRAVITY (H ₂ O=1): 1.15	VAPOR DENSITY: Heavier than air.
BOILING RANGE: 308 F	EVAPORATION RATE: Slower than nBuAc
% VOLATILE BY WT: 43.42%	COATING V.O.C.: 498 g/l (4.15 lb/gal)
% VOLATILE BY VOLUME: 44.58%	

===== SECTION 10 - STABILITY/REACTIVITY DATA =====**STABILITY:**

Stable.

CONDITIONS TO AVOID:

All possible sources of ignition.

INCOMPATIBILITY (MATERIALS TO AVOID):

Avoid exposure to strong oxidizing agents and reducing agents.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Combustion may liberate toxic byproducts such as carbon dioxide, carbon monoxide, various oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION:

Will not occur.

=====**SECTION 11 - TOXICOLOGICAL INFORMATION**=====

SENSITIZATION: As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanates at levels well below applicable exposure limits. These symptoms could be immediate or delayed several hours after exposure. This increased sensitivity can persist for weeks and in severe cases for several years.

CARCINOGENICITY: There is no data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.

REPRODUCTIVE TOXICITY: There is no data available to indicate any components present at greater than 0.1% may present reproductive toxicity.

TERATOGENICITY (BIRTH DEFECTS): There is no data available to indicate any components present at greater than 0.1% may cause birth defects.

MUTAGENICITY: There is no data to indicate that any component present at greater than 0.1% will alter DNA.

=====**SECTION 12 - ECOLOGICAL INFORMATION**=====

ENVIRONMENTAL DATA: Although no information is available for this specific product mixture, individual components may by themselves may have ecological affects. Trimethylbenzene is a marine pollutant under 49 CFR 172.101.

=====**SECTION 13 - DISPOSAL CONSIDERATIONS**=====

This product is considered a RCRA hazardous waste due to the characteristic(s) of D001 and D018. Waste is subject to the land disposal restrictions in 40 CFR 268.40 and may require treatment standards. Consult state and local regulations to determine whether they are more stringent than the federal requirements.

Container contents should be completely used and containers empty prior to discarding. Container rinsate could be considered a RCRA hazardous waste and must be discarded in compliance with all applicable regulations. Larger empty containers, such as drums, should be returned to a professional drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

===== SECTION 14 - REGULATORY INFORMATION =====

SHIPPING NAME: Combustible liquid. Not regulated in containers 119 gallons (450 liters) or less, and ground travel.
(For containers greater than 119 gallons, or air: PAINT,3,UN1263,III)

PACKING GROUP: n/a

ALL INGREDIENTS OF THIS PRODUCT ARE LISTED OR ARE EXCLUDED FROM LISTING ON THE US TOXIC SUBSTANCES CONTROL ACT (TSCA) CHEMICAL SUBSTANCE INVENTORY.

This product does contain a chemical(s) subject to the reporting requirements of SARA Title III, Section 313 (40CFR 372). See section 2.

STATE SPECIFIC REQUIREMENTS:

This product does not contain a chemical known to the state of California to cause cancer, birth defects or reproductive harm, subject to the requirements of California Proposition 65.

STATE LISTED COMPONENTS	CAS NUMBER	STATE CODE
Trimethylbenzene	95-63-6	CA,MA,MN,NJ,PA

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