

MATERIAL SAFETY 3M
 DATA SHEET 3M Center
 St. Paul, Minnesota
 55144-1000
 1-800-364-3577 or (651) 737-6501 (24 hours)

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DIVISION: MARINE TRADES PROJECT
 TRADE NAME:

3M(TM) Marine Adhesive Sealant 5200 - White, PN 05200, 05203, 05206,
 06498, 06500, 06550, 06600

ID NUMBER/U.P.C.:

| | | | |
|----------------|------------------|----------------|------------------|
| 60-9800-2008-9 | 00-51135-05203-7 | 60-9800-2010-5 | 00-51135-05206-8 |
| 60-9800-2070-9 | 00-51135-06500-6 | 60-9800-2609-4 | 00-51135-06500-6 |
| 60-9800-2610-2 | 00-51131-46811-5 | 60-9800-3251-4 | 00-51135-06500-6 |
| 60-9800-3622-6 | 00-51135-06499-3 | 60-9800-3678-8 | 00-51135-06498-6 |
| 60-9800-4304-0 | 00-51135-05203-7 | 62-5236-8530-3 | 00-21200-21463-9 |
| 62-6500-1609-0 | 00-51135-05203-7 | XS-0413-1186-8 | - - - |

ISSUED: December 13, 2001
 SUPERSEDES: May 31, 2001
 DOCUMENT: 11-1356-2

| 1. INGREDIENT | C.A.S. NO. | PERCENT | |
|---|-------------|---------|--------|
| URETHANE PREPOLYMER..... | 57451-08-8 | 50.0 | - 60.0 |
| TALC..... | 14807-96-6 | 20.0 | - 40.0 |
| TITANIUM DIOXIDE..... | 13463-67-7 | 1.0 | - 10.0 |
| ZINC OXIDE..... | 1314-13-2 | 1.0 | - 10.0 |
| ACRYLATE POLYMER - NJTSRN 04499600- 5575P..... | TradeSecret | | < 1.0 |
| ACETONE..... | 67-64-1 | | < 0.5 |
| HEPTANE..... | 142-82-5 | | < 0.4 |
| TOLUENE DIISOCYANATE..... | 26471-62-5 | | < 0.1 |

This product contains the following toxic chemical or chemicals subject to
 the reporting requirements of Section 313 of Title III of the Emergency
 Planning and Community Right-To-Know Act of 1986 and 40 CFR Part 372:

ZINC OXIDE
 TOLUENE DIISOCYANATE

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

2. PHYSICAL DATA

BOILING POINT:..... N/A
VAPOR PRESSURE:..... N/A
VAPOR DENSITY:..... N/A
EVAPORATION RATE:..... N/A
SOLUBILITY IN WATER:..... nil
SPECIFIC GRAVITY:..... 1.170 - 1.220 Water=1
PERCENT VOLATILE:..... < 1 % by wt
pH:..... N/A
VISCOSITY:..... ca. 100000 centipoise
(Thixotropic paste)
MELTING POINT:..... N/D

APPEARANCE AND ODOR:
Thixotropic paste, white, very slight odor.

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... 157 F
ASTM D93
FLAMMABLE LIMITS - LEL:..... N/A
FLAMMABLE LIMITS - UEL:..... N/A
AUTOIGNITION TEMPERATURE:..... N/D

EXTINGUISHING MEDIA:
Carbon dioxide, Dry chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES:
Wear full protective clothing, including helmet, self-contained,
positive pressure or pressure demand breathing apparatus, bunker coat
and pants, bands around arms, waist and legs, face mask, and
protective covering for exposed areas of the head.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
None known.

NFPA HAZARD CODES: HEALTH: 1 FIRE: 0 REACTIVITY: 0
UNUSUAL REACTION HAZARD: none

4. REACTIVITY DATA

STABILITY: Stable

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

4. REACTIVITY DATA (continued)

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:
Not determined

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Hydrogen
Cyanide.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Ventilate area. Contain spill. Evacuate unprotected personnel from hazard area. Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Alternatively, pour water on spill and allow to react for more than 30 minutes. Cover with absorbent. Place in an approved drum, but do not seal the drum for 48 hours to avoid possible pressure buildup. Neutralize spill residue with decontaminant solution.

RECOMMENDED DISPOSAL:

Cure product according to product instructions. Dispose of completely cured (or polymerized) material in a sanitary landfill. Disposal alternative: Incinerate in an industrial or commercial facility.

ENVIRONMENTAL DATA:

Not determined.

REGULATORY INFORMATION:

Volatile Organic Compounds: 0.04 lb/gal calculated.
Volatile Organic Compounds: 5 gms/liter calculated per SCAQMD rule 443.1.
VOC Less H2O & Exempt Solvents: 5 gms/liter calculated per SCAQMD rule 443.1.

Since regulations vary, consult applicable regulations or authorities before disposal. In the event of an uncontrolled release of this material, the user should determine if the release qualifies as a reportable quantity. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous).

EPCRA HAZARD CLASS:

FIRE HAZARD: No PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with large amounts of water. Get immediate medical attention.

SKIN CONTACT:

Immediately wash skin with soap and large amounts of water. Remove contaminated clothing. If signs/symptoms occur, call a physician. Wash contaminated clothing before reuse and dispose of contaminated shoes.

INHALATION:

Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

IF SWALLOWED:

Do not induce vomiting. Drink two glasses of water. Call a physician.

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact. Wear safety glasses with side shields.

SKIN PROTECTION:

Wear appropriate gloves when handling this material. Use one or more of the following personal protection items as necessary to prevent skin contact: apron, coveralls.

RECOMMENDED VENTILATION:

Use with appropriate local exhaust ventilation. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

Avoid breathing of vapors. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-mask supplied air respirator, full-face supplied air respirator.

PREVENTION OF ACCIDENTAL INGESTION:

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Do not ingest.

RECOMMENDED STORAGE:

Keep container dry. Keep container closed when not in use. Keep container in well-ventilated area. Keep out of the reach of children.

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 7. PRECAUTIONARY INFORMATION (continued)

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed. Keep away from heat, sparks, open flame, and other sources of ignition.

OTHER PRECAUTIONARY INFORMATION:

Do not use heat to aid in the removal of 5200 Marine Sealant. The application of heat may generate levels of Toluene Diisocyanate (TDI) in excess of the TLV.

HMIS HAZARD RATINGS: HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0
 PERSONAL PROTECTION: H

EXPOSURE LIMITS

| INGREDIENT | VALUE | UNIT | TYPE | AUTH | SKIN* |
|--------------------------|-------|--------------------|------|-------|-------|
| URETHANE PREPOLYMER..... | NONE | NONE | NONE | NONE | |
| TALC..... | 2 | MG/M3 | TWA | OSHA | |
| | | RESPIRABLE | | | |
| TALC..... | 2 | MG/M3 | TWA | ACGIH | |
| | | RESPIRABLE | | | |
| TALC..... | 0.5 | MG/M3 | TWA | CMRG | |
| | | AS RESPIRABLE DUST | | | |
| TITANIUM DIOXIDE..... | 10 | MG/M3 | TWA | ACGIH | |
| TITANIUM DIOXIDE..... | 10 | MG/M3 | TWA | OSHAV | |
| | | AS DUST | | | |
| | | OSHA VACATED PEL | | | |
| TITANIUM DIOXIDE..... | 15 | MG/M3 | TWA | OSHA | |
| | | AS TOTAL DUST | | | |
| TITANIUM DIOXIDE..... | 5 | MG/M3 | TWA | CMRG | |
| | | AS RESPIRABLE DUST | | | |
| ZINC OXIDE..... | 10 | MG/M3 | TWA | ACGIH | |
| | | AS DUST | | | |
| ZINC OXIDE..... | 10 | MG/M3 | TWA | OSHAV | |
| | | AS DUST | | | |
| | | OSHA VACATED PEL | | | |
| ZINC OXIDE..... | 5 | MG/M3 | TWA | ACGIH | |
| | | as fume | | | |
| ZINC OXIDE..... | 10 | MG/M3 | STEL | ACGIH | |
| | | as fume | | | |
| ZINC OXIDE..... | 5 | MG/M3 | TWA | OSHA | |
| | | as fume | | | |
| ZINC OXIDE..... | 10 | MG/M3 | STEL | OSHAV | |
| | | as fume | | | |
| | | OSHA VACATED PEL | | | |
| ZINC OXIDE..... | 15 | MG/M3 | TWA | OSHA | |
| | | AS TOTAL DUST | | | |
| ZINC OXIDE..... | 5 | MG/M3 | TWA | OSHA | |
| | | RESPIRABLE | | | |

 Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

EXPOSURE LIMITS (continued)

| INGREDIENT | VALUE | UNIT | TYPE | AUTH | SKIN* |
|---|-------|------|------------------|-------|-------|
| ----- | | | | | |
| ACRYLATE POLYMER - NJTSRN 04499600- 5575P..... | NONE | NONE | NONE | NONE | |
| ACETONE..... | 500 | PPM | TWA | ACGIH | |
| ACETONE..... | 750 | PPM | STEL | ACGIH | |
| ACETONE..... | 750 | PPM | TWA | OSHA | |
| | | | OSHA VACATED PEL | | |
| ACETONE..... | 1000 | PPM | STEL | OSHA | |
| | | | OSHA VACATED PEL | | |
| ACETONE..... | 1000 | PPM | TWA | OSHA | |
| HEPTANE..... | 400 | PPM | TWA | ACGIH | |
| HEPTANE..... | 500 | PPM | STEL | ACGIH | |
| HEPTANE..... | 400 | PPM | TWA | OSHA | |
| | | | OSHA VACATED PEL | | |
| HEPTANE..... | 500 | PPM | STEL | OSHA | |
| | | | OSHA VACATED PEL | | |
| HEPTANE..... | 500 | PPM | TWA | OSHA | |
| TOLUENE DIISOCYANATE..... | 0.005 | PPM | TWA | 3M | |
| TOLUENE DIISOCYANATE..... | 0.02 | PPM | STEL | 3M | |

* SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:

- 3M: 3M Recommended Exposure Guidelines
- ACGIH: American Conference of Governmental Industrial Hygienists
- CMRG: Chemical Manufacturer Recommended Exposure Guidelines
- OSHA: Occupational Safety and Health Administration
- OSHAV: Occupational Safety and Health Administration Vacated PEL. Vacated Permissible Exposure Limits (PEL) are enforced as the OSHA PEL in some states. Check with your local regulatory authority.
- NONE: None Established

 8. HEALTH HAZARD DATA

EYE CONTACT:

Moderate Eye Irritation: signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.

SKIN CONTACT:

Mild Skin Irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, and itching.

Prolonged or repeated exposure may cause:

 Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

8. HEALTH HAZARD DATA (continued)

Allergic Skin Reaction: signs/symptoms can include redness, swelling, blistering, and itching.

INHALATION:

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

Prolonged or repeated exposure may cause:

Allergic Respiratory Reaction: signs/symptoms can include difficulty breathing, wheezing, tightness of chest, and respiratory failure.

IF SWALLOWED:

Ingestion may cause:

Irritation of Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, abdominal tenderness, nausea, blood in vomitus, and blood in feces.

CANCER:

WARNING: Contains a chemical which can cause cancer. (26471-62-5)
(NTP anticipated human carcinogen, IARC possible human carcinogen 2B, Calif. Proposition 65)

OTHER HEALTH HAZARD INFORMATION:

TOLUENE DIISOCYANATE (26471-62-5): Persons previously sensitized to TDI or other isocyanate may react to subsequent exposures of concentrations well below the TLV. These symptoms which can include chest tightness, wheezing, cough, shortness of breath, or asthma attack, could be immediate or delayed for several hours.

SECTION CHANGE DATES

| HEADING | SECTION CHANGED SINCE May 31, 2001 | ISSUE |
|---------|------------------------------------|-------|
|---------|------------------------------------|-------|

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