

MATERIAL SAFETY 3M  
DATA SHEET 3M Center  
St. Paul, Minnesota  
55144-1000  
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DIVISION: ENGINEERED ADHESIVES  
HOME CARE DIVISION  
INTERNATIONAL OPERATIONS

TRADE NAME:

3M(TM) Safety-Walk(TM) Brand Edge Sealing Compound  
ISSUED: December 20, 2001  
SUPERSEDES: INITIAL ISSUE  
DOCUMENT: 16-5395-5

| 1. INGREDIENT                            | C.A.S. NO. | PERCENT |
|--|------------|---------|
| POLY(BUTYL METHACRYLATE).....            | 9003-63-8  | 40 - 50 |
| HYDROTREATED HEAVY NAPHTHA (PETROLEUM).. | 64742-48-9 | 20 - 30 |
| VM & P NAPHTHA.....                      | 8032-32-4  | 20 - 30 |
| TOLUENE.....                             | 108-88-3   | 7 - 13  |
| N-BUTYL METHACRYLATE.....                | 97-88-1    | 1 - 2   |
| 2,2,4-TRIMETHYLPENTANE.....              | 540-84-1   | 1 - 2   |

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:

TOLUENE

2. PHYSICAL DATA

BOILING POINT:..... 232.00 F  
(toluene)  
VAPOR PRESSURE:..... 25.1900 mmHg  
@ 68F  
VAPOR DENSITY:..... 3.00 Air=1  
EVAPORATION RATE:..... > 2.00 Ether=1  
SOLUBILITY IN WATER:..... Nil  
SPECIFIC GRAVITY:..... 0.880 Water=1  
PERCENT VOLATILE:..... 55.00 % by wt  
pH:..... N/D  
VISCOSITY:..... 5700.0 - 6600.0 centipoise  
MELTING POINT:..... N/D

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

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2. PHYSICAL DATA (continued)  
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APPEARANCE AND ODOR:

Clear liquid - odor of naphtha

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3. FIRE AND EXPLOSION HAZARD DATA  
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FLASH POINT:..... 40.00 F  
FLAMMABLE LIMITS - LEL:..... 1.00 % by vol  
FLAMMABLE LIMITS - UEL:..... 7.00 % by vol  
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:

Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

NFPA HAZARD CODES: HEALTH: 2 FIRE: 3 REACTIVITY: 0

UNUSUAL REACTION HAZARD: none

OSHA FIRE HAZARD CLASS: Class IB Flammable Liquid

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4. REACTIVITY DATA  
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STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Strong Oxidizing Agents.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Aldehydes, Ketones, Hydrocarbons.

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5. ENVIRONMENTAL INFORMATION  
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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. Extinguish all ignition sources. Cover with absorbent material. Collect using non-sparking tools. Place in a U.S. DOT-approved container.

RECOMMENDED DISPOSAL:

Incinerate in a permitted hazardous waste incinerator in the presence of a combustible material. Dispose of waste product in a facility permitted to accept chemical waste.

ENVIRONMENTAL DATA:

A conservative, screening level assessment of this product indicates that its use and proper disposal are likely to present a low environmental risk. Potential use and misuse are unlikely to cause components to enter the environment in quantities or by routes that could cause adverse environmental impacts.

Use of this product releases volatile organic compounds (VOCs) to the atmosphere. VOCs contribute to the formation of smog and indirectly to the formation of global warming gases (e.g., atmospheric degradation to CO<sub>2</sub>). Thus releases should be avoided or minimized to the extent possible. Actual risks associated with this release cannot be quantified at this time as there are no agreed upon criteria within the scientific community for determining impacts associated with individual releases. However, though it is recommended that releases be minimized or eliminated, if releases are in line with permitting for the facility or allowed under current clean air initiatives, they are currently considered acceptable.

REGULATORY INFORMATION:

Volatile Organic Compounds: 481 gms/liter South Coast Air Quality Mgmt Dist Method Rule 443.1, calculated.  
VOC Less H<sub>2</sub>O & Exempt Solvents: 481 gms/liter South Coast Air Quality Mgmt Dist Method Rule 443.1, calculated.

Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = D001 (Ignitable)

OTHER ENVIRONMENTAL INFORMATION:

The components labeled "readily biodegradable" are expected to fully degrade in wastewater treatment and in most aerobic water or soil environments.

BIOWIN, a model developed by Syracuse Research Corporation, indicates the components labeled "BIOWIN inherent" are likely to be inherently biodegradable. Biodegradation may be incomplete in wastewater treatment and slow in the environment.

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5. ENVIRONMENTAL INFORMATION (continued)

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(3M ranks biodegradability on BIOWIN linear & non-linear probabilities: "Readily" biodegradable - both >0.60; "Inherently" - both >0.40 & one or both <0.60; "Unreliable" - one <0.40 & the other >0.60; "Non or slowly" - one or both <0.40 & both <0.60.)

This product is estimated to be toxic to aquatic organisms (1 mg/L < Lowest LC50, EC50, or IC50 < or = 10 mg/L). The estimate assumes no synergistic, antagonistic or nonadditive effects.

Product toxicity was estimated using the following equation:  
 $(1/\text{Product LC50, EC50, or IC50}) = \text{SUM } (f_i/l_i)$  from  $i = 1$  to  $i = n$  for  
 $f_i$  = fraction of component  $i$  in product,  $l_i$  = lowest LC50, EC50, IC50 of component  $i$ ,  $n$  = number of components in product.

In addition, this calculation includes component data that was estimated using computer simulation (QSAR). The product may therefore be more toxic than the calculation indicates.

In addition, the data set used for the calculation was incomplete. The product may be more toxic than indicated.

Tests have shown that the components labeled "Don't bioconcentrate" did NOT bioconcentrate or accumulate in the test organisms

The components labeled "Log Kow <3" have measured or calculated log Kow values <3 indicating they are unlikely to bioconcentrate to high concentrations in aquatic organisms by partitioning into lipid tissues

The components labeled "Log Kow > or = 3" have measured or calculated log Kow values of > or = 3 indicating they have a potential to bioconcentrate to high concentrations in aquatic organisms by partitioning into lipid tissues.

Take precautions to prevent direct release of this product to the environment.

Components labeled readily biodegradable: toluene (108-88-3); N-butyl methacrylate (97-88-1).

Tests that strongly promote biodegradation show this substance is "slow to biodegrade." This means this substance shows >20% biodegradation but may not fully biodegrade: Hydrotreated heavy naphtha (petroleum)\* (64742-48-9); VM & P Naphtha\* (8032-32-4).

Components labeled "BIOWIN inherent": 2,2,4-Trimethylpentane (540-84-1).

Components labeled "Don't bioconcentrate": toluene (108-88-3).

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5. ENVIRONMENTAL INFORMATION (continued)

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Components labeled "log Kow <3": N-butyl methacrylate (97-88-1).

Components labeled "log Kow >= 3": 2,2,4-Trimethylpentane (540-84-1); Hydrotreated heavy naphtha (petroleum)\* (64742-48-9); VM & P Naphtha\* (8032-32-4).

\*These environmental hazard statements are based on environmental data for similar naphtha mixtures.

Intended use, foreseeable potential misuses, and proper disposal of this preparation are likely to result in the release of preparation substances to air. Once released, fugacity analysis estimates they are likely to partition as follows:

76% to 100% to the air: Toluene (108-88-3); N-Butyl methacrylate (97-88-1); 2,2,4-Trimethylpentane (540-84-1).

<1% to the water: Toluene (108-88-3); 2,2,4-Trimethylpentane (540-84-1).

1% to 25% to the water: N-Butyl methacrylate (97-88-1).

<1% to the soil: Toluene (108-88-3); N-Butyl methacrylate (97-88-1); 2,2,4-Trimethylpentane (540-84-1).

<1% to the sediment: Toluene (108-88-3); N-Butyl methacrylate (97-88-1); 2,2,4-Trimethylpentane (540-84-1).

Fugacity analysis estimates could not be conducted on the naphtha mixtures or poly(butyl methacrylate) because the computer program is not able to run mixtures in the model.

EPCRA HAZARD CLASS:

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

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6. SUGGESTED FIRST AID

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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.

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6. SUGGESTED FIRST AID (continued)  
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INHALATION:

If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

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7. PRECAUTIONARY INFORMATION  
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EYE PROTECTION:

Avoid eye contact. Wear unvented goggles during operations in which exposure is likely.

SKIN PROTECTION:

Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: polyethylene/ethylene vinyl alcohol, polyvinyl alcohol, polytetrafluoroethylene (Teflon), fluoroelastomer (Viton).

RECOMMENDED VENTILATION:

Use in a well-ventilated area. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

Avoid prolonged 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 organic vapor respirator, full-face organic vapor respirator.

PREVENTION OF ACCIDENTAL INGESTION:

Wash hands after handling and before eating. Do not ingest.

RECOMMENDED STORAGE:

Store away from heat. Keep container closed when not in use. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

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

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7. PRECAUTIONARY INFORMATION (continued)  
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EXPOSURE LIMITS

| INGREDIENT                                     | VALUE            | UNIT | TYPE | AUTH  | SKIN* |
|--|------------------|------|------|-------|-------|
| POLY(BUTYL METHACRYLATE).....                  | NONE             | NONE | NONE | NONE  |       |
| HYDROTREATED HEAVY NAPHTHA<br>(PETROLEUM)..... | 100              | PPM  | TWA  | 3M    |       |
| HYDROTREATED HEAVY NAPHTHA<br>(PETROLEUM)..... | 300              | PPM  | TWA  | CMRG  |       |
| VM & P NAPHTHA.....                            | 100              | PPM  | TWA  | CMRG  |       |
| VM & P NAPHTHA.....                            | 300              | PPM  | TWA  | ACGIH |       |
| VM & P NAPHTHA.....                            | 300              | PPM  | TWA  | OSHA  |       |
| TOLUENE.....                                   | 50               | PPM  | TWA  | ACGIH | Y     |
| TOLUENE.....                                   | 100              | PPM  | TWA  | OSHAV |       |
|  | OSHA VACATED PEL |      |      |       |       |
| TOLUENE.....                                   | 150              | PPM  | STEL | OSHAV |       |
|  | OSHA VACATED PEL |      |      |       |       |
| TOLUENE.....                                   | 200              | PPM  | TWA  | OSHA  |       |
| TOLUENE.....                                   | 300              | PPM  | CEIL | OSHA  |       |
| TOLUENE.....                                   | 75               | PPM  | STEL | CMRG  | Y     |
| N-BUTYL METHACRYLATE.....                      | 50               | PPM  | TWA  | CMRG  |       |
| N-BUTYL METHACRYLATE.....                      | 75               | PPM  | STEL | CMRG  |       |
| 2,2,4-TRIMETHYLPENTANE.....                    | 300              | PPM  | TWA  | ACGIH |       |
| 2,2,4-TRIMETHYLPENTANE.....                    | 375              | PPM  | STEL | ACGIH |       |

\* 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

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8. HEALTH HAZARD DATA  
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EYE CONTACT:

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

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8. HEALTH HAZARD DATA (continued)  
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SKIN CONTACT:

Moderate Skin Irritation: signs/symptoms can include redness, swelling, itching, and dryness.

May be absorbed through the skin and produce effects similiar to those caused by inhalation and/or ingestion.

Prolonged or repeated exposure may cause:

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

INHALATION:

Single overexposure, above recommended guidelines, may cause:

Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

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

Prolonged or repeated overexposure, above recommended guidelines, may cause:

Liver Effects: signs/symptoms can include yellow skin(jaundice) and tenderness of upper abdomen.

Central Neuropathy: signs/symptoms can include dizziness, incoordination, visual changes, emotional changes, tremors and convulsions.

IF SWALLOWED:

Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue, blurred vision, slurred speech, giddiness, tremors and convulsions.

Ingestion may cause:

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

REPRODUCTIVE/DEVELOPMENTAL TOXINS:

WARNING: Contains a chemical which can cause birth defects. (108-88-3)

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