

23706-XXXX

MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10



Material Safety Data Sheet

Copyright, 2010, 3M Company. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol)
MANUFACTURER: 3M
DIVISION: Stationery Products
ADDRESS: 3M Center
 St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 06/21/10
Supersedes Date: 01/07/10

Document Group: 22-0408-9

Product Use:
 Intended Use: Adhesive

SECTION 2: INGREDIENTS

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|--|-------------------|----------------|
| NON-VOLATILE COMPONENTS - N.J. TRADE SECRET REGISTRY NO. 04499600-6433P | Trade Secret | 20 - 30 |
| ACETONE | 67-64-1 | 20 - 30 |
| PROPANE | 74-98-6 | 15 - 25 |
| 2-METHYLPENTANE | 107-83-5 | 5 - 15 |
| 3-METHYLPENTANE | 96-14-0 | 3 - 9 |
| CYCLOHEXANE | 110-82-7 | 4 - 8 |
| 2,2-DIMETHYLBUTANE | 75-83-2 | 2 - 6 |
| 2,3-DIMETHYLBUTANE | 79-29-8 | 2 - 6 |
| HEXANE | 110-54-3 | < 1.5 |

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Aerosol
Odor, Color, Grade: Clear, sweet fruity odor

MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10**General Physical Form:** Liquid

Immediate health, physical, and environmental hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure. May cause severe eye irritation. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

3.2 POTENTIAL HEALTH EFFECTS**Eye Contact:**

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Skin Contact:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Inhalation:

Intentional concentration and inhalation may be harmful or fatal.

Single exposure, above recommended guidelines, may cause:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Prolonged or repeated exposure may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause:

Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.

| |
|---|
| MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10 |
|---|

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. If signs/symptoms develop, get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. Get immediate medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 NOTE TO PHYSICIANS

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature

No Data Available

Flash Point

-42.00 °F [Test Method: Tagliabue Closed Cup] [Details:

CONDITIONS: Propellant]

Flammable Limits - LEL

No Data Available

Flammable Limits - UEL

No Data Available

OSHA Flammability Classification:

Class IA Flammable Liquid

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure.

MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Read and follow safety precautions on the solvent label and MSDS.

Environmental procedures

Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate organic solvent. Seal the container.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Do not pierce or burn container, even after use. No smoking while handling this material. Do not spray near flames or sources of ignition. Avoid breathing of vapors, mists or spray. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Vapors may ignite explosively. May cause flash fire. Prevent build-up of vapors - open all windows and doors. Maintain vapor concentrations below recommended exposure limits. Use only with cross-ventilation. Without adequate ventilation, vapors may settle in low-lying areas. Keep away from heat, sparks, and open flame. Do not smoke or ignite matches, lighters, etc. Do not breathe vapors. Avoid contact with oxidizing agents.

7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container tightly closed. Do not store containers on their sides. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use in an enclosed process area is recommended. Do not use in a confined area or areas with little or no air movement. Do not remain in area where available oxygen may be reduced. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment. Do not use in a confined area or areas with little or no air movement. If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate to control vapor concentrations below recommended

| |
|---|
| MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10 |
|---|

exposure limits and/or control spray or mist.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Indirect Vented Goggles

8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Fluoroelastomer (Viton)

Nitrile Rubber

Polyvinyl Alcohol (PVA)

Polyethylene/Ethylene Vinyl Alcohol

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Do not breathe vapors.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with

OSHA regulations: Half facepiece or fullface air-purifying respirator with organic vapor cartridges

Half facepiece or fullface pressure demand self-contained breathing apparatus

. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

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

8.3 EXPOSURE GUIDELINES

| <u>Ingredient</u> | <u>Authority</u> | <u>Type</u> | <u>Limit</u> | <u>Additional Information</u> |
|--------------------------------------|------------------|-------------|------------------------|-------------------------------|
| ACETONE | ACGIH | TWA | 500 ppm | |
| ACETONE | ACGIH | STEL | 750 ppm | |
| ACETONE | OSHA | TWA | 2400 mg/m ³ | |
| CYCLOHEXANE | ACGIH | TWA | 100 ppm | |
| CYCLOHEXANE | OSHA | TWA | 1050 mg/m ³ | |
| HEXANE | ACGIH | TWA | 50 ppm | Skin Notation* |
| HEXANE | OSHA | TWA | 1800 mg/m ³ | |
| HEXANE (ISOMERS OTHER THAN N-HEXANE) | ACGIH | TWA | 500 ppm | |
| HEXANE (ISOMERS OTHER THAN N-HEXANE) | ACGIH | STEL | 1000 ppm | |
| PROPANE | OSHA | TWA | 1800 mg/m ³ | |

* Substance(s) 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:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

| |
|---|
| MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10 |
|---|

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Specific Physical Form: | Aerosol |
| Odor, Color, Grade: | Clear, sweet fruity odor |
| General Physical Form: | Liquid |
| Autoignition temperature | <i>No Data Available</i> |
| Flash Point | -42.00 °F [<i>Test Method:</i> Tagliabue Closed Cup] [<i>Details:</i> CONDITIONS: Propellant] |
| Flammable Limits - LEL | <i>No Data Available</i> |
| Flammable Limits - UEL | <i>No Data Available</i> |
| Boiling point | <i>Not Applicable</i> |
| Density | 0.726 g/ml |
| Vapor Density | 2.97 [<i>Ref Std:</i> AIR=1] |
| Specific Gravity | 0.726 [<i>Ref Std:</i> WATER=1] |
| pH | <i>Not Applicable</i> |
| Melting point | <i>Not Applicable</i> |
| Solubility in Water | Negligible |
| Evaporation rate | 1.90 [<i>Ref Std:</i> ETHER=1] |
| Hazardous Air Pollutants | 0.4 % weight [<i>Test Method:</i> Calculated] |
| Hazardous Air Pollutants | 0.016 lb HAPS/lb solids |
| Hazardous Air Pollutants | 0.02 lb HAPS/gal [<i>Test Method:</i> Calculated] |
| Volatile Organic Compounds | Approximately 51 % [<i>Test Method:</i> calculated SCAQMD rule 443.1] |
| Kow - Oct/Water partition coef | <i>No Data Available</i> |
| Percent volatile | <=75 % weight |
| VOC Less H2O & Exempt Solvents | 468 g/l |
| Viscosity | <i>Not Applicable</i> |

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:

10.1 Conditions to avoid

Heat

Sparks and/or flames

10.2 Materials to avoid

None known

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10

Substance

Aldehydes
Carbon monoxide
Carbon dioxide

Condition

During Combustion
During Combustion
During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION**ECOTOXICOLOGICAL INFORMATION**

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION**ID Number(s):**

62-4977-2926-9, 62-4977-4830-1, 70-0050-1481-9, 70-0050-1706-9, 70-0050-1808-3, 70-0050-1809-1, 70-0050-8170-1, 70-0050-8171-9, 70-0050-8855-7, 70-0050-8856-5, 70-0050-9202-1, 70-0714-2173-2, 70-0714-2194-8, 70-0714-8197-5, 70-0714-9203-0, 70-0714-9575-1

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION**US FEDERAL REGULATIONS**

| |
|--|
| MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10 |
|--|

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

| <u>Ingredient</u> | <u>C.A.S. No</u> | <u>% by Wt</u> |
|-------------------|------------------|----------------|
| CYCLOHEXANE | 110-82-7 | 4 - 8 |
| HEXANE | 110-54-3 | < 1.5 |

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Non hazardous according to WHMIS criteria.

This material contains one or more ingredients that may be regulated by the International Traffic in Arms Regulation (ITAR), an export control of US military technology and chemicals. Prior to export of this material or any product containing this material, determine whether a proper license from the Department of State must be obtained. See 22CFR 120-130 for any specific requirements.

Contact 3M for more information.

WHMIS: Non-hazardous

| |
|---|
| This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200. |
|---|

| |
|--------------------------------------|
| SECTION 16: OTHER INFORMATION |
|--------------------------------------|

MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10**NFPA Hazard Classification**

Health: 2 Flammability: 4 Reactivity: 0 Special Hazards: None
Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification

Health: 2 Flammability: 4 Reactivity: 0 Protection: X - See PPE section.

Hazardous Material Identification System (HMIS(r)) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and Coatings Association (NPCA).

Revision Changes:

Section 4: First aid for eye contact - decontamination - was modified.
Section 4: First aid for eye contact - medical assistance - was modified.
Section 3: Potential effects from eye contact was modified.
Section 3: Potential effects from skin contact information was modified.
Section 3: Potential effects from inhalation information was modified.
Section 8: Eye/face protection information was modified.
Section 8: Skin protection - recommended gloves information was modified.
Section 8: Respiratory protection - recommended respirators information was modified.
Section 3: Other health effects information was modified.
Section 14: ID Number(s) Template 1 was modified.
Section 2: Ingredient table was modified.
Section 8: Exposure guidelines ingredient information was modified.
Section 10: Materials to avoid physical property was modified.
Section 10: Conditions to avoid physical property was modified.
Section 3: Immediate eye hazard(s) was added.
Section 6: Environmental procedures heading was added.
Section 6: Personal precautions heading was added.
Section 6: Clean-up methods heading was added.
Section 6: Release measures heading was deleted.
Section 8: Exposure guidelines legend was deleted.

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3M.

3M MSDSs are available at www.3M.com

MATERIAL SAFETY DATA SHEET 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol) 06/21/10