

3M Super 77™ Multipurpose Spray Adhesive

Technical Data

March 2012

Product Description

A high tack, high coverage and fast drying adhesive.

Key Features

- A high tack, high coverage fast drying, transparent adhesive for permanently attaching foils, carpeting, many lightweight foams, paper, cardboard, felt and cloth to painted or unpainted metals, wood, hardboard and other base materials.
- It provides high initial "grab" with sufficient open time to allow for positioning of materials.
- Low soak-in gives better looking and higher coverage bonds.
- Soft, non-dimpling glue lines

Typical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Product	3M™ Super 77™ Multipurpose Spray Adhesive	3M™ Scotch-Weld™ Super 77™ Cylinder Spray Adhesive	3M™ Super 77™ Spray Adhesive
Base:	Synthetic Elastomer	Synthetic Elastomer	Synthetic Elastomer
Solids Content - (by wt.):	25%	27%	36%
Density (lbs/gal):	6.0	6.5	6.5
Viscosity (cps):	N/A	N/A	200 - 5000
Color(s):	Translucent	Translucent	Translucent
Volatile Organic Compounds (VOC):	51%	548 g/L	504 g/L
Hazardous Air Pollutants (HAPS) % wt (calculated):	.4%	.93%	1.2%
CARB Compliant:	Yes	N/A	N/A
SCAQMD 1168 Compliant:	N/A	No	No
GREENGUARD Indoor Air Quality Certified®:	No	No	No
LEED® Eligible:	Yes	No	No
Coverage @ 1 gms /ft ² per lb (sqft):	114 sqft	124 sqft	168 sqft
Spray Pattern:	Mist	Mist	Mist
Dry Time:	15 seconds – 1 minute	15 seconds – 1 minute	15 seconds – 1 minute
Bonding Range:	15 seconds – 15 minutes	15 seconds – 15 minutes	15 seconds – 15 minutes
Shear Adhesion Failure Test - SAFT ⁽¹⁾ :	150F	150F	150F
Flammable Solvent:	Yes	Yes	Yes
Flammable Propellant:	Yes	Yes	N/A

⁽¹⁾SAFT Shear Adhesion Failure Test with birch plywood, 1 inch overlap, 100 grams used, temperature start at 90F and ramped 10F every 10 mn. until complete failure.

Available Sizes

Container Size	3M Stock Number	UPC Number
24 Fl. Oz. (Net Wt. 16.75 oz)	62-4977-4930-9	00-021200-21210-9
Large Cylinder – 29.3 lbs.	62-4979-8030-0	00-051115-25776-6
5 gallon pail – 32.5 lbs.	62-4458-8530-4	00-021200-43793-9
52 gallon drum – 338 lbs.	62-4458-9530-3	00-021200-43813-4

3M Super 77™ Multipurpose Spray Adhesive

Storage	Store product at 60°-80°F (16°-27°C) for maximum storage life. Higher temperatures reduce normal storage life. Lower temperatures may cause increased viscosity of a temporary nature. Rotate stock on a “first in-first out” basis.
Shelf Life	When stored at the recommended conditions in original, unopened container, this product has a shelf life of 15 months from date of shipment.
Precautionary Information	Refer to product label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.
Technical Information	The technical information, recommendations and other statements contained in this document are based upon testes or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.
Product Use	Many factors beyond 3M’s control and uniquely within user’s knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user’s method of application.
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Super 77™ Multipurpose Spray Adhesive

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This MSDS has been prepared by 3M New Zealand Pty Limited Toxicology Dept.

1. PRODUCT AND COMPANY IDENTIFICATION

Tradename

3M(TM) SUPER 77(TM) MULTIPURPOSE ADHESIVE (AEROSOL)

3M Product ID

62-4977-2926-9, 70-0050-1481-9

Intended Use of Product:

Adhesive for bonding various substrates.

Supplier Details:

3M New Zealand Limited,

94 Apollo Drive,

Rosedale,

Auckland 0632

New Zealand.

Phone: (09) 477 4040

24 hr Emergency phone number: 0800 764766 (0800 POISON)

2. HAZARDS IDENTIFICATION

NOTE:

Classified as hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

Classified as a Dangerous Good according to NZ 5433:2007

Transport of Dangerous Goods on land, IMDG and IATA.

HSNO Hazard Classifications:

2.1.2A, 6.4A, 6.8B, 6.9A, 9.1D

GHS Classification

GHS Classification - Physical

Flammable Aerosol: Category 2.

GHS Classification - Environmental

Acute Aquatic Toxicity: Category 3.

GHS Classification - Health

Serious Eye Damage/Irritation: Category 2A.

Reproductive Toxicity: Category 2.

Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (central nervous system): Category 3.

Specific Target Organ Toxicity (repeated exposure): Category 1.

Signal Word

DANGER!

Symbols

Flame |

Exclamation mark |

Health Hazard |

Hazard Statements - Physical

Flammable aerosol.

Hazard Statements - Environmental

H402 Harmful to aquatic life.

Hazard Statements - Health

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

Hazard Statements - Target Organ, Single Exposure, Category 1

H370 Causes damage to organs:

cardiovascular system |

Hazard Statements - Target Organ, Single Exposure, Category 2

NONE ALLOCATED

Hazard Statements - Target Organ, Single Exposure, Category 3

H336 May cause drowsiness or dizziness.

Hazard Statements - Target Organ, Prolonged or Repeated Exposure, Category 1

H372 Causes damage to organs through prolonged or repeated exposure:

nervous system |

Hazard Statements - Target Organ, Prolonged or Repeated Exposure, Category 2

NONE ALLOCATED

Precautionary Statements - General

NONE ALLOCATED

Precautionary Statements - Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P280A Wear eye/face protection.

Use personal protective equipment as required.

P270 Do not eat, drink or smoke when using this product.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

Precautionary Statements - Response

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statements - Storage

Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.

P403 + P233 Store in a well-ventilated place. Keep container tightly

P405 Store locked up.

Precautionary Statements - Disposal

P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Unknown % Acute Lethality

9.84% of the mixture consists of ingredients of unknown acute oral toxicity.

Unknown % Environmental

13.42% of the mixture consists of ingredients of unknown hazards to the aquatic environment.

3. COMPOSITION

Ingredient name	CAS number	%
Non-volatile components	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
n-Hexane	110-54-3	< 1.5

4. FIRST AID MEASURES

Instructions for Eye Contact

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

Instructions for Skin Contact

Remove contaminated clothing and shoes. Immediately wash skin with large amounts of soap and water. If signs/symptoms develop, get medical attention. Wash contaminated clothing and shoes before reuse.

Instructions for Inhalation

If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.

Instructions for Ingestion

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.

Special Instructions for First Aid

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

Work Place Facilities Required

A product risk assessment is recommended to determine if eye wash facilities may be required when using this product in the workplace.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

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

Exposure Hazards during Fire

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

Combustion Products from Fire

Combustion Products from Fire are listed in Section 10, STABILITY AND REACTIVITY.

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 and a self-contained breathing apparatus.

Special Instructions for Fire Fighting

Aerosol container contains flammable material under pressure.

HAZCHEM CODE 2YE

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Evacuate unprotected and untrained personnel from hazard area.

The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice.

Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode.

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.

Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Read and follow safety precautions on the solvent label and MSDS.

Environmental Procedures

For larger spills, cover drains and build dykes to prevent entry

into sewer systems or bodies of water. 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.

Methods for Cleaning Up

Refer to other sections of this Safety Data Sheet for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Contain spill. Cover spill area with a fire-extinguishing foam. An aqueous film forming foam (AFFF) is recommended. 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.

7. HANDLING AND STORAGE

Refer MSDS Section 15- HSN0 Controls For More Information

Use Instructions

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep container tightly closed. Do not pierce or burn container, even after use. Avoid inhalation of vapours, mists or spray. Avoid eye contact with vapours, mists, or spray. Vapours may ignite explosively. May cause flash fire. Prevent build-up of vapours - open all windows and doors. Maintain vapour concentrations below recommended

exposure limits. Use only with cross-ventilation. Without adequate ventilation, vapours 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 vapours. Avoid contact with oxidising agents.

Fire Prevention

Ground containers securely when transferring contents. Wear low static or properly grounded shoes. No smoking while handling this material. Do not spray near flames or sources of ignition.

Extremely flammable liquid and vapour.

Explosion Prevention

Keep away from heat, sparks, open flame, pilot lights and other sources of ignition.

Static Prevention

Avoid static discharge.

Storage Requirements

Do not store containers on their sides.

Incompatible Materials

Store away from acids. Store away from heat. Store out of direct sunlight. Store away from oxidising agents.

Approved Handler Test Certificate: 3000 litres

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Acetone (67-64-1)

WES - STEL

1000ppm, 2375mg/m³

WES - TWA

500ppm, 1185mg/m³

Cyclohexane (110-82-7)

WES - STEL

300ppm, 1050mg/m³

WES - TWA

100ppm, 350mg/m³

n-Hexane (110-54-3)

WES - TWA

20ppm, 75mg/m³

Recommended Ventilation

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, vapour, 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 exposure limits and/or control spray or mist.

Eye Protection

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance specifications of AS/NZS 1337. Avoid eye contact with vapours, mists, or spray. The following should be worn alone or in combination, as appropriate, to prevent eye contact: Indirect vented goggles.

Hand Protection

The following glove material(s) are recommended: Nitrile rubber. Polyethylene or ethylene vinyl alcohol. Polyvinyl alcohol. Fluoroelastomer.

Skin Protection

Avoid skin contact.

Respiratory Protection

Avoid inhalation of vapours, mists or spray. Do not breathe vapours. Select one of the following approved respirators based on airborne concentration of contaminants and in accordance with regulations: Half face piece or full face air-purifying

respirator with organic vapour cartridges. Half facepiece or fullface pressure demand self-contained breathing apparatus. Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information on respirators, call 3M on (09) 477 4040.

Ingestion

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep out of the reach of children.

9. PHYSICAL/CHEMICAL PROPERTIES

- Appearance and Odour: Liquid Aerosol. Clear, sweet fruity odour liquid in aerosol
- Odour Threshold: Not determined.
- pH: Not applicable
- Boiling point/boiling range: Not applicable
- Melting point/melting range: Not applicable
- Flash point: -41.11 °C (TCC) CONDITIONS:

Propellant

- Autoflammability: Not determined
- Flammable Limits - LEL: Not determined
- Flammable Limits - UEL: Not determined
- Water Solubility: Negligible
- Partition coefficient (K o/w): Not determined
- Specific gravity: 0.726
- Vapour density: 2.97
- Relative Density: Not determined.
- Volatile organic compounds: CA 51 % (SCAQMD 443.1
calculated)
- Evaporation rate: 1.9 (Ether=1)
- Viscosity: Not applicable
- Percent Volatile: <= 75 % by weigh

10. STABILITY AND REACTIVITY

Stability and Reactivity

Hazardous polymerisation will not occur. Stable.

Conditions to Avoid

Sparks and/or flames. Heat.

Materials to Avoid

None known.

Hazardous Decomposition

Aldehydes - During Combustion. Carbon monoxide - During Combustion. Carbon dioxide - During Combustion.

11. TOXICOLOGICAL INFORMATION

Effects from Eye Contact

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

Effects from Skin Contact

- Mild Skin Irritation: Signs/symptoms may include localised

redness, swelling, and itching.

Effects from Inhalation

- Intentional concentration and inhalation may be harmful or fatal. - Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May be absorbed following inhalation and cause target organ effects. Prolonged or repeated exposure may cause: - Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure. Single exposure, above recommended guidelines, may cause: - Cardiac Sensitisation: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Effects from 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.

Other Effects and Information

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.

Reproductive Effects

Contains a chemical or chemicals which can cause birth defects or other reproductive harm. HEXANE (CAS# 110-54-3)

Numerical Measures of Toxicity

Not determined.

12. ECOLOGICAL INFORMATION

Environmental Data

Not determined.

Mobility in Soil and Water

Not determined.

Persistence/Biodegradability

Not determined.

Bioaccumulation Potential

Not determined.

Ecotoxicity Data

Not determined.

Ecological Fate Data

Not determined.

13. DISPOSAL CONSIDERATIONS

Product as Sold

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.

Product in Use

Not determined.

Product after Use

Not determined.

Product Packaging

Disposal of the aerosol dispenser (that may or maynot contain any residual substance), maybe lawfully disposed of by householders or other consumers through public or commercial waste collection services.

Potential for Recycling

Not determined.

14. TRANSPORT INFORMATION

New Zealand Land Transport (Road/Rail)

UN NUMBER	UN 1950
PROPER SHIPPING NAME	AEROSOLS
DANGEROUS GOODS CLASS	2.1
SUBSIDIARY RISK	NONE ALLOCATED
PACKING GROUP	NONE ALLOCATED
HAZCHEM CODE	2YE

IATA (Air Freight)

UN NUMBER	UN 1950
PROPER SHIPPING NAME	AEROSOLS FLAMMABLE
DANGEROUS GOODS CLASS	2.1
SUBSIDIARY RISK	NONE ALLOCATED
PACKING GROUP	NONE ALLOCATED

IMO (Sea Freight)

UN NUMBER	UN 1950
PROPER SHIPPING NAME	AEROSOLS
DANGEROUS GOODS CLASS	2.1
SUBSIDIARY RISK	NONE ALLOCATED
PACKING GROUP	NONE ALLOCATED

15. REGULATORY INFORMATION

ERMA New Zealand HSNO Approval Number: HSR002515

NZ Inventory of Chemicals (NZIoC)

Yes-Components Checked.

HSNO Hazard Classifications - refer to Section 2.

HSNO Controls:

Approved Handler Test Certificate:

3000 litres

Location and Transit Depot Test Certification

3000 litres

Hazardous Atmosphere Zone

3000 litres

Fire Extinguishers

3000 litres

Emergency Response Plan

3000 litres

Secondary Containment

Not Required

Tracking

Not Required

Warning Signage

3000 litres

16. OTHER INFORMATION

Reason for Reissue

Initial Issue

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date of issue.

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