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Product Catalog for 3M Composites > 3M<sup>™</sup> Adhesives, Sealants and Fasteners > 3M<sup>™</sup> Hi-Strength Spray Adhesive 90 >

# 3M<sup>TM</sup> Hi-Strength Spray Adhesive 90, 24 oz, 12 cans per case



High strength, fast contact-type adhesive. Fast contact strength buildup for many decorative laminates. Only needs one minute of drying time.

[click to enlarge]

#### **Products**

#### **Product Documentation**

Product / 3M Id / UPC	Color	Product Form	Trademark Name 1	MSDS
3M <sup>™</sup> Hi-Strength Spray Adhesive 90, 24 oz, 12 cans per case	Clear	Can	3M	
3M Id: 62-4942-4930-3 GTIN(UPC/EAN): 0 00 21200 30023 3				
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# Scotch-Weld $^{\text{\tiny TM}}$ Spray 90 High Strength Adhesive

# **Product Data Sheet**

#### **Product Description**

Scotch-Weld Spray 90 Adhesive is an aerosol adhesive designed for a wide variety of applications requiring high initial strength and fast development of ultimate strength.

In some cases, the performance of Spray Adhesive 90 is comparable to that of a conventional brush applied contact adhesive.

The bonds have excellent resistance to water and long term ageing.

# Physical Properties Not for specification purposes

Base	Synthetic Elastomer	
Solvent	Cyclohexane, Pentane and Acetone	
Flash Point	-41°C	
Propellant	Dimethyl Ether	
Contents	350g (500ml)	
Solids Content	11.0% approximately	
Colour	Clear/Pale Cream	
Shelf Life	12 months from date of receipt by customer when stored in the original carton at 21°C (70°F) & 50 % Relative Humidity	

# Performance Characteristics Not for specification purposes

Service Temperature Range	-32°C to +80°C	
Water Resistance	Good	
Weathering Resistance	Good	
Fuel and Oil Resistance	Poor	

## Strength of Adhesive

# **Peel Strength**

Canvas (No. 10 Cotton Duck) was bonded to the following substrates by applying methylene chloride free Spray Adhesive 90 to both surfaces.

Bonds were made at a 5 minutes open time and pulled in 180° peel at the rate of 50mm per minute. Bonds were dried one day at 24°C and 3 days at 50°C before testing.

Scotch-Weld Spray 90 High Strength Adhesive

Substrate	180° Peel Strength N/cm
Aluminium	47 - 55
Cold Rolled Steel	47
Polypropylene	39 - 47
Polyethylene	19 - 24
ABS	43 - 55
Nylon	59 - 70
PVC	47 - 55
Perspex	55 - 63
Polycarbonate	63 - 71
Butyl Rubber	8 - 10
EPDM Rubber	10 - 12
Natural Rubber	5 - 6
Neoprene Rubber	6 - 8
Nitrile Rubber	4 - 5
SBR	3 - 5

### **Storage Conditions**

Cool, dry place. Storage temperatures must not exceed 49°C. Best results are obtained when material is stored and applied at room temperature, 16°C to 27°C.

# Health & Safety Information

#### Precautions:

Highly flammable. Vapour may be harmful. May cause eye irritation. Keep away from heat. Keep away from sources of ignition including pilot lights and sparks - No Smoking. Avoid prolonged breathing of vapours/spray. Do not use in confined areas or areas with little or no air movement. Do not spray directly into eyes. Avoid prolonged or repeated contact with the skin. Keep out of reach of children.

#### **WARNING:**

Pressurised container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or incandescent material.

#### First Aid:

#### **Eye Contact:**

Rinse immediately with plenty of water and seek medical advice.

#### **Skin Contact:**

Wash with soap and water.

For further information please contact our Toxicology Department at the Bracknell Head Office on (01344) 858000.

#### **Applications**

Spray 90 Adhesive is suitable for bonding most lightweight materials, woods, rubber, glass and many other lightweight materials including upholstery foam and fabrics.

It will also bond hard to hold materials such as some decorative laminates and veneer edging, polypropylene and polyethylene.

Suitable for bonding supported vinyl, but should be checked for plasticiser migration.



# **Material Safety Data Sheet**

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# SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M(TM) Hi-Strength Spray Adhesive 90 (aerosol)

**MANUFACTURER:** 3M

**DIVISION:** Industrial Adhesives and Tapes Division

**ADDRESS:** 3M Center

St. Paul, MN 55144-1000

**Issue Date:** 11/24/2008 **Supercedes Date:** 06/09/2005

**Document Group:** 16-4935-9

**Product Use:** 

Intended Use: aerosol adhesive

Specific Use: hi-strength aerosol adhesive

# **SECTION 2: INGREDIENTS**

<u>Ingredient</u>	<b>C.A.S. No.</b>	<u>% by Wt</u>
DIMETHYL ETHER	115-10-6	35 - 45
METHYL ACETATE	79-20-9	25 - 35
NON-VOLATILE COMPONENTS - N.J. TRADE SECRET REGISTRY NO.	Trade Secret	10 - 20
04499600-6448P		
CYCLOHEXANE	110-82-7	7 - 13
1,1-DIFLUOROETHANE	75-37-6	1 - 5
PENTANE	109-66-0	1 - 5

# **SECTION 3: HAZARDS IDENTIFICATION**

# 3.1 EMERGENCY OVERVIEW

Specific Physical Form: Aerosol

Odor, Color, Grade: clear, sweet fruity odor

General Physical Form: Gas

**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 target organ effects.

#### MATERIAL SAFETY DATA SHEET 3M(TM) Hi-Strength Spray Adhesive 90 (aerosol)

**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]

**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:** 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.

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

# SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: 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.

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. 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. Contain spill. Clean up residue. 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.

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**

#### MATERIAL SAFETY DATA SHEET 3M(TM) Hi-Strength Spray Adhesive 90 (aerosol)

METHYL ACETATE OSHA STEL 250 ppm Table Z-1A

PENTANE ACGIH TWA 600 ppm PENTANE OSHA TWA, Vacated 600 ppm PENTANE OSHA STEL, Vacated 750 ppm

PENTANE OSHA TWA 1000 ppm Table Z-1

VAC Vacated PEL:Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

# 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)

# **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Specific Physical Form: Aerosol

Odor, Color, Grade: clear, sweet fruity odor

General Physical Form: Gas

**Autoignition temperature** No Data Available

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

Flammable Limits - LEL

Flammable Limits - UEL

Ro Data Available

No Data Available

No Data Available

No Applicable

Vapor Density 2.97 [Ref Std: AIR=1]

Specific Gravity 0.726 [Ref Std: WATER=1]

**pH Melting point**No Data Available
Not Applicable

Solubility in Water Nil

Evaporation rate 1.90 [Ref Std: ETHER=1]

**Hazardous Air Pollutants** <=0.29 % weight [*Test Method*: Calculated]

**Hazardous Air Pollutants**0.02 lb HAPS/lb solids **Hazardous Air Pollutants**0.17 lb HAPS/gal

Volatile Organic Compounds 54 %

**Percent volatile** <=75 % weight

VOC Less H2O & Exempt Solvents 533 g/l

Viscosity Not Applicable

# **SECTION 10: STABILITY AND REACTIVITY**

Stability: Stable.

Materials and Conditions to Avoid: Heat

Hazardous Polymerization: Hazardous polymerization will not occur.