

Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:3M™ Weld-Thru II Coating, PN 05917**MANUFACTURER:**3M**DIVISION:**Automotive Aftermarket

ADDRESS: 3M Center, St. Paul, MN 55144-1000

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

Issue Date: 03/27/12 **Supercedes Date:** 01/14/10

Document Group: 18-7877-6

Product Use:

Intended Use: Specific Use: Automotive Weldable corrosion-resistant coating.

SECTION 2: INGREDIENTS

Ingredient	<u>C.A.S. No.</u>	<u>% by Wt</u>
ACETONE	67-64-1	30 - 60
LIQUEFIED PETROLEUM GASES	68476-86-8	10 - 30
ZINC	7440-66-6	7 - 13
XYLENE	1330-20-7	3 - 7
ZINC RICH PRIMER	Mixture	1 - 5
ETHYLBENZENE	100-41-4	1 - 5
ALUMINUM	7429-90-5	1 - 5
STODDARD SOLVENT	8052-41-3	< 2
LIGHT AROMATIC SOLVENT NAPHTHA (PETROLEUM)	64742-95-6	< 0.2
TOLUENE	108-88-3	< 0.1
CUMENE	98-82-8	< 0.05

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Aerosol

Odor, Color, Grade: Gray/Metallic appearance with solvent odor. General Physical Form: Liquid

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

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.

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

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

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.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Prolonged or repeated exposure may cause:

Central Neuropathy: Signs/symptoms may include irritability, memory impairment, personality changes, sleep disorders, and decreased ability to concentrate.

Hard Tissue Effects: Signs/symptoms may include color changes in the teeth and nails; changes in development of bone, teeth or nails; weakening of the bones; and/or hair loss.

Hematopoietic Effects: Signs/symptoms may include generalized weakness, fatigue and alterations in numbers of circulating blood cells.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of

the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

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

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	Class Description	Regulation
ETHYLBENZENE	100-41-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

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: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.
Inhalation: Remove person to fresh air. Get immediate medical attention.
If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate 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	-156 °F [Test Method: Pensky-Martens Closed Cup]
Flammable Limits(LEL)	0.7 %
Flammable Limits(UEL)	12.8 %

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: Flammable liquefied gas. 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

6.1. Personal precautions, protective equipment and emergency procedures

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation and personal protective equipment. Evacuate unprotected and untrained personnel from the hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area. WARNING ! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. If it can be done safely, place the leaking containers in an exhaust hood or well- ventilated area.WARNING ! To avoid problems with pressure buildup, slowly leaking pressurized aerosol cans should not be placed in sealed containers. 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 vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors 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.

6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in an approved metal container. Dispose of collected material as soon as possible.

Clean-up methods

Contain spill, using absorbent if necessary. Collect spilled material with non-sparking tools. Clean up residue. Place depressurized cans and clean up wastes in a metal container approved for transportation. Seal the container. 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. Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam 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 solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. 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. Do not pierce or burn container, even after use. No smoking while handling this material. Avoid breathing of vapors, mists or spray. Aerosol container contains flammable gas under pressure. Avoid eye contact with vapors, mists, or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. 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. For industrial or professional use only. Avoid contact with oxidizing agents. Extinguish pilot lights and turn off stoves, ovens and other gas and electric appliances (space and water heaters, furnaces, etc.), electric motors, and other sources of ignition during adhesive use and until all vapors are gone; i.e., until the odor of vapors at the floor level has disappeared. Do not use electric light switches. Do not generate static sparks (such as by walking on carpet, etc.). Use the same precautions in the work area and all connected areas. Keep out of the reach of children. Keep away from strong bases and amines. (When welding on 3M Weldable Primer, adhere to the standard precautions normally taken for welding. Avoid breathing fumes during welding operations. The use of

local exhaust ventilation is recommended to control welding fumes. When local exhaust ventilation is not used, a NIOSH/MSHA-approved respirator is recommended.)

7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed. Do not store containers on their sides. Store away from areas where product may come into contact with food or pharmaceuticals. Store away from oxidizing agents. Store at temperatures below 120 degrees Fahrenheit (49 degrees C).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Use with functioning spray booth or local exhaust. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Do not use in a confined area or areas with little or no air movement.

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: Safety Glasses with side shields 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: Polymer laminate

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8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. 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 and N95 particulate prefilters . Select and use respiratory protection to prevent an inhalation exposure based on the results of an exposure assessment. Consult with

your respirator manufacturer for selection of appropriate types of respirators. When welding through this coating, use appropriate respiratory protection against hazardous decomposition products.

8.2.4 Prevention of Swallowing

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

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	Additional Information
ACETONE	ACGIH	TWA	500 ppm	
ACETONE	ACGIH	STEL	750 ppm	
ACETONE	OSHA	TWA	2400 mg/m3	
ALUMINUM	ACGIH	TWA, respirable	1 mg/m3	
		fraction	-	
ALUMINUM	OSHA	TWA, as Al	5 mg/m3	
		respirable dust	U	
ALUMINUM	OSHA	TWA, as Al total dust	15 mg/m3	
CUMENE	ACGIH	TWA	50 ppm	
CUMENE	OSHA	TWA	245 mg/m3	Skin Notation*
			U	

ETHYLBENZENE	ACGIH	TWA	20 ppm	
ETHYLBENZENE	CMRG	TWA	25 ppm	
ETHYLBENZENE	CMRG	STEL	75 ppm	
ETHYLBENZENE	OSHA	TWA	435 mg/m3	
LIGHT AROMATIC SOLVENT NAPHTHA	CMRG	TWA	50 ppm	
(PETROLEUM)				
PETROLEUM DISTILLATES	OSHA	TWA	2000 mg/m3	
STODDARD SOLVENT	ACGIH	TWA	100 ppm	
STODDARD SOLVENT	OSHA	TWA	2900 mg/m3	
TOLUENE	ACGIH	TWA	20 ppm	
TOLUENE	CMRG	STEL	75 ppm	Skin Notation*
TOLUENE	OSHA	TWA	200 ppm	
TOLUENE	OSHA	CEIL	300 ppm	
XYLENE	ACGIH	TWA	100 ppm	
XYLENE	ACGIH	STEL	150 ppm	
XYLENE	CMRG	TWA	50 ppm	
XYLENE	CMRG	STEL	75 ppm	
XYLENE	OSHA	TWA	435 mg/m3	

* 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)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form: Odor, Color, Grade: General Physical Form: Autoignition temperature Flash Point Flammable Limits(LEL) Flammable Limits(UEL) Boiling Point

Vapor Density Vapor Pressure

Specific Gravity pH Melting point

Solubility in Water Evaporation rate Hazardous Air Pollutants Volatile Organic Compounds Volatile Organic Compounds Volatile Organic Compounds Kow - Oct/Water partition coef Percent volatile VOC Less H2O & Exempt Solvents Aerosol Gray/Metallic appearance with solvent odor. Liquid *No Data Available* -156 °F [*Test Method:* Pensky-Martens Closed Cup] 0.7 % 12.8 % *Not Applicable*

[*Details:* Heavier than air] 80 - 90 mmHg

0.796 [*Ref Std:* WATER=1] *Not Applicable Not Applicable*

Appreciable No Data Available 0.53 lb HAPS/gal [*Test Method:* Calculated] 2.37 lb/gal [*Test Method:* calculated SCAQMD rule 443.1] 35.7 % weight [*Test Method:* calculated per CARB title 2] 284 g/l [*Test Method:* calculated SCAQMD rule 443.1] No Data Available 35.64 % 558 g/l [*Test Method:* calculated SCAQMD rule 443.1]

Viscosity

No Data Available

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: 10.1 Conditions to avoid Heat

10.2 Materials to avoid Strong acids Strong bases Strong oxidizing agents Amines

Additional Information: All sources of ignition, welding arcs, and open flame.

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance	Condition
Hydrocarbons	Not Specified
Chlorine	Not Specified
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Hydrogen Chloride	Not Specified
Oxides of Nitrogen	Not Specified
Phosgene	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified
Oxides of Zinc	Not Specified

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: Do not puncture or burn cans in a household incinerator. 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. Combustion products will include HCl. Facility must be capable of handling halogenated materials.

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):

LB-K100-0341-3, 60-9801-0777-9

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

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>	C.A.S. No	<u>% by Wt</u>
XYLENE	1330-20-7	3 - 7
ETHYLBENZENE	100-41-4	1 - 5

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	Classification
CUMENE	98-82-8	**Carcinogen
ETHYLBENZENE	100-41-4	**Carcinogen
TOLUENE	108-88-3	*Female reproductive toxin
TOLUENE	108-88-3	*Developmental Toxin

* WARNING: contains a chemical or chemicals which can cause birth defects or other reproductive harm. ** WARNING: contains a chemical which can cause cancer.

CHEMICAL INVENTORIES

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

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

WHMIS: Hazardous

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

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

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

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.

Revision Changes:

Section 1: Product use information was modified.

Section 16: Disclaimer (second paragraph) was modified.

Section 4: First aid for eye contact - decontamination - was modified.

Section 4: First aid for eye contact - medical assistance - was modified.

Section 3: Immediate physical hazard(s) 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 3: Potential effects from ingestion information was modified.

Section 7: Handling information was modified.

Section 7: Storage information was modified.

Section 8: Engineering controls information was modified.

Section 8: Prevention of swallowing information was modified.

Section 10: Hazardous decomposition or by-products table 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 4: First aid for inhalation - medical assistance - was modified.

Section 3: Immediate other hazard(s) was modified.

Section 14: Transportation legal text was modified.

Section 3: Other health effects information was modified.

Section 9: Vapor pressure value was modified.

Section 9: Boiling point information was modified.

Section 5: Flammable limits (UE) information was modified.

Section 5: Flammable limits (LEL) information was modified.

Section 5: Autoignition temperature information was modified.

Section 9: Vapor density text was modified.

Section 5: Flash point information was modified.

Section 9: Property description for optional properties was modified.

Section 9: Specific gravity information was modified.

Section 9: pH information was modified.

Section 9: Melting point information was modified.

Section 9: Solubility in water text was modified.

Section 8: Respiratory protection - recommended respirators guide was modified.

Section 9: Flash point information was modified.

Section 9: Flammable limits (LEL) information was modified.

Section 9: Flammable limits (UEL) information was modified. Section 9: Autoignition temperature information was modified. Section 2: Ingredient table was modified. Section 15: EPCRA 313 information was modified. Section 8: Exposure guidelines ingredient information was modified. Section 3: Carcinogenicity table was modified. Section 15: California proposition 65 ingredient information was modified. Section 6: Personal precautions information was modified. Section 6: Environmental procedures information was modified. Section 6: Methods for cleaning up information was modified. Section 10: Materials to avoid physical property was modified. Section 10: Conditions to avoid physical property was modified. Section 4: Note to physicians heading was added. Section 3: Immediate eye hazard(s) was added. Section 4: Note to physicians was added. Section 16: NFPA hazard classification for aerosol storage was added. Section 3: Other health effects information (mutagenicity) was added. Section 3: Other health effects information (reproductive hazards) was added. Section 15: California proposition 65 cancer warning was added. Section 6: 6.2. Environmental precautions heading was added. Section 6: 6.1. Personal precautions, protective equipment and emergency procedures heading was added. Section 16: Web address was added. Section 1: Address was added. Copyright was added. Company logo was added. Section 6: Clean-up methods heading was added. Telephone header was added. Company Telephone was added. Section 1: Emergency phone information was added. Section 1: Emergency phone information was deleted. Company Logo was deleted. Copyright was deleted. Section 16: Web address heading was deleted. Section 6: Release measures heading was deleted. Section 1: Address line 1 was deleted. Section 1: Address line 2 was deleted. Section 8: Exposure guidelines legend was deleted.

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