



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Single Step Primer PN 08681, 08682, 08708, 58012
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)

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Product Use:

Intended Use: Automotive
Specific Use: Auto Glass Primer

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
METHYL ETHYL KETONE	78-93-3	40 - 70
N-BUTYL ACETATE	123-86-4	10 - 30
POLYMETHYLENE POLYPHENYLENE ISOCYANATE	9016-87-9	5 - 10
1,6-HEXAMETHYLENE DIISOCYANATE-TDI COPOLYMER	63368-95-6	5 - 10
(GAMMA-MERCAPTOPROPYL)TRIMETHOXSILANE	4420-74-0	1 - 5
GLYCIDOXYPROPYLTRIMETHOXSILANE	2530-83-8	1 - 5
1-METHOXY-2-PROPYL ACETATE	108-65-6	1 - 5
HEXAMETHYLENE DIISOCYANATE POLYMER	28182-81-2	1 - 5
POLYURETHANE RESINS (WITHOUT ISOCYANATES)	Mixture	1 - 5
CARBON BLACK	1333-86-4	1 - 5
DIBUTYL TIN DICHLORIDE	683-18-1	0.01 - 0.1
TOLUENE 2,4-DIISOCYANATE	584-84-9	0.01 - 0.05
TOLUENE 2,6-DIISOCYANATE	91-08-7	0.01 - 0.05
HEXAMETHYLENE DIISOCYANATE	822-06-0	0.01 - 0.05

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Liquid

Odor, Color, Grade: Black. Pungent odor.

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: Flammable liquid and vapor. 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. Reacts violently with water. May cause allergic skin reaction. May cause allergic respiratory reaction. May cause target organ effects. Contains a chemical or chemicals which can cause cancer.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

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

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Inhalation:

May be harmful or fatal if inhaled.

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

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

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.

Blood Effects: Signs/symptoms may include generalized weakness and fatigue, skin pallor, changes in blood clotting time, internal bleeding, and/or hemoglobinemia.

Prolonged or repeated exposure may cause:

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.

Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
CARBON BLACK	1333-86-4	Group 2B	International Agency for Research on Cancer
TOLUENE 2,4-DIISOCYANATE	584-84-9	Group 2B	International Agency for Research on Cancer
TOLUENE 2,4-DIISOCYANATE	584-84-9	Anticipated human carcinogen	National Toxicology Program Carcinogens
TOLUENE 2,6-DIISOCYANATE	91-08-7	Group 2B	International Agency for Research on Cancer
TOLUENE 2,6-DIISOCYANATE	91-08-7	Anticipated human carcinogen	National Toxicology Program Carcinogens

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: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get 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.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	> 392 °F
Flash Point	17.6 °F [Test Method: Closed Cup]
Flammable Limits - LEL	1.8 % volume
Flammable Limits - UEL	11.5 % volume
OSHA Flammability Classification:	Class IB Flammable Liquid

5.2 EXTINGUISHING MEDIA

DO NOT USE WATER 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.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: 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. 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. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. 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. 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

7.1 HANDLING

Avoid contact with water to prevent potentially violent reaction or fire. 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. Avoid breathing of vapors, mists or spray. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. For industrial or professional use only. Avoid contact with oxidizing agents.

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. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Provide local exhaust ventilation at transfer points. Provide appropriate local exhaust ventilation on open containers. Do not use in a confined area or areas with little or no air movement. 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.

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: Butyl Rubber, Polyethylene/Ethylene Vinyl Alcohol.

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray.

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 P95 particulate prefilters, Half facepiece or fullface supplied-air respirator. 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>
1-METHOXY-2-PROPYL ACETATE	AIHA	TWA	50 ppm	
1-METHOXY-2-PROPYL ACETATE	CMRG	TWA	10 mg/m3	
1-METHOXY-2-PROPYL ACETATE	CMRG	STEL	90 ppm	
GLYCIDOXYPROPYLTRIMETHOXYSILANE	CMRG	TWA	5 ppm	
CARBON BLACK	ACGIH	TWA	3.5 mg/m3	Table A4
CARBON BLACK	CMRG	TWA	0.5 mg/m3	
CARBON BLACK	OSHA	TWA	3.5 mg/m3	Table Z-1
FREE ISOCYANATES	3M	TWA	0.005 ppm	
FREE ISOCYANATES	3M	STEL	0.02 ppm	
HEXAMETHYLENE DIISOCYANATE	ACGIH	TWA	0.005 ppm	
HEXAMETHYLENE DIISOCYANATE	CMRG	CEIL	0.02 ppm	
HEXAMETHYLENE DIISOCYANATE	CMRG	TWA	0.5 mg/m3	
POLYMER				
HEXAMETHYLENE DIISOCYANATE	CMRG	STEL	1 mg/m3	
METHYL ETHYL KETONE	ACGIH	TWA	200 ppm	
METHYL ETHYL KETONE	ACGIH	STEL	300 ppm	
METHYL ETHYL KETONE	OSHA	TWA	200 ppm	Table Z-1A
METHYL ETHYL KETONE	OSHA	STEL	300 ppm	Table Z-1A
N-BUTYL ACETATE	ACGIH	TWA	150 ppm	
N-BUTYL ACETATE	ACGIH	STEL	200 ppm	
N-BUTYL ACETATE	OSHA	TWA	150 ppm	Table Z-1A
N-BUTYL ACETATE	OSHA	STEL	200 ppm	Table Z-1A
TOLUENE 2,4-DIISOCYANATE	ACGIH	TWA	0.005 ppm	Sensitizer; Table A4
TOLUENE 2,4-DIISOCYANATE	ACGIH	STEL	0.02 ppm	Sensitizer; Table A4
TOLUENE 2,4-DIISOCYANATE	OSHA	TWA, Vacated	0.005 ppm	
TOLUENE 2,4-DIISOCYANATE	OSHA	CEIL	0.02 ppm	Table Z-1
TOLUENE 2,4-DIISOCYANATE	OSHA	STEL, Vacated	0.02 ppm	
TOLUENE 2,6-DIISOCYANATE	ACGIH	TWA	0.005 ppm	Sensitizer; Table A4
TOLUENE 2,6-DIISOCYANATE	ACGIH	STEL	0.02 ppm	Sensitizer; Table A4

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:	Liquid
Odor, Color, Grade:	Black. Pungent odor.
General Physical Form:	Liquid
Autoignition temperature	> 392 °F
Flash Point	17.6 °F [<i>Test Method</i> : Closed Cup]
Flammable Limits - LEL	1.8 % volume
Flammable Limits - UEL	11.5 % volume
Boiling point	174 °F
Density	1.0 g/ml
Vapor Density	3 [<i>Ref Std</i> : AIR=1]
Vapor Pressure	<=80 mmHg [<i>@</i> 20 °C]
Specific Gravity	0.9 [<i>@</i> 20 °C] [<i>Ref Std</i> : WATER=1]
pH	<i>Not Applicable</i>
Melting point	<i>Not Applicable</i>
Solubility In Water	14 g/100 ml
Evaporation rate	3.5 [<i>Ref Std</i> : BUOAC=1]
Volatile Organic Compounds	732 g/l
Percent volatile	67 %
VOC Less H2O & Exempt Solvents	732 g/l
Viscosity	20 MPa-s [<i>@</i> 20 °C]

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Strong acids; Strong bases; Strong oxidizing agents; Amines; Alcohols; Water; Alkali and alkaline earth metals
Additional Information: Reacts with water forming carbon dioxide. Danger of container bursting because of vapor over pressure.

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Hydrogen Cyanide	Not Specified
Oxides of Nitrogen	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: Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable), D035 (Methyl ethyl ketone)

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

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

60-4100-0940-5, 60-4100-0942-1, 60-9801-0734-0, DS-2729-9054-2, DS-2729-9055-9, DS-2729-9056-7, DS-2729-9057-5, LB-K000-0023-0, LB-K000-1017-0

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

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - Yes 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>
POLYMETHYLENE POLYPHENYLENE ISOCYANATE (Diisocyanates (EPCRA 313))	9016-87-9	5 - 10
HEXAMETHYLENE DIISOCYANATE (Diisocyanates (EPCRA 313))	822-06-0	0.01 - 0.05

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
TOLUENE 2,6-DIISOCYANATE	91-08-7	**Carcinogen
CARBON BLACK	1333-86-4	**Carcinogen
TOLUENE 2,4-DIISOCYANATE	584-84-9	**Carcinogen

** 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.
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SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 3 Reactivity: 1 Special Hazards: Reacts with Water

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:

Copyright was modified.

Section 14: ID Number Heading Template 1 was added.

Section 14: ID Number(s) Template 1 was added.

Section 2: Ingredient table was added.

Section 15: EPCRA 313 information was added.

Section 15: EPCRA 313 text was added.

Section 8: Exposure guidelines ingredient information was added.

Section 8: Exposure guidelines legend was added.

Section 8: Exposure guidelines data source legend was added.

Section 3: Carcinogenicity table was added.

Section 3: Carcinogenicity heading was added.

Section 15: California proposition 65 ingredient information was added.

Section 15: California proposition 65 heading was added.

Section 15: California proposition 65 cancer warning was added.

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