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Material Safety Data Sheet

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1 Product Identification

Trade name:

3M(TM) FASTENER ADHESIVE 2510 ORANGE

Product ID:

CG-7901-0773-6 41-3700-9545-1 70-0706-9833-0 70-0706-9887-6
70-0708-5154-1

Intended Use of Product:

Assembly of motored machinery;

Division:

3M CANADA COMPANY

2 Composition/Information on Ingredients

Ingredient Name	CAS Number	Percentage
TOLUENE	108-88-3	30 - 42
BISPHENOL A - EPICHLOROHYDRIN COPOLYMER	25068-38-6	15 - 30
UREA, POLYMER WITH FORMALDEHYDE AND 1,3,5-TRIAZINE-2,4,6-TRIAMINE	25036-13-9	15 - 25
4,4'-TRIMETHYLENEDIPIPERIDINE	16898-52-5	3 - 7
VINYL BUTYRAL-VINYL ACETATE-VINYL ALCOHOL POLYMER	27360-07-2	2 - 5
N-BUTYL GLYCIDYL ETHER	2426-08-6	1 - 3
SILICA GEL	63231-67-4	1 - 5

ISOPROPYL ALCOHOL	67-63-0	1 - 3
2-ETHYL-4-METHYL-IMIDAZOLE	931-36-2	1 - 5
C.I. PIGMENT ORANGE 36	12236-62-3	0.2 -

1.0

Ingredient Statements:

Applied (i.e., coated and dried) versions of this adhesive contain the same ingredients except that toluene, isopropyl alcohol, and benzene are absent.

NOTE:

Each percentage is expressed as the ratio of the weight of the ingredient to the weight of the controlled product.

3 Hazards Identification

Critical Hazards:

Flammable liquid and vapour.

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

Severe Skin Irritation: signs/symptoms can include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may

include redness, swelling, blistering, and itching.

May be absorbed following inhalation and cause target organ effects.

May be absorbed following ingestion and cause target organ effects.

TOLUENE (108-88-3): can cause birth defects or other reproductive harm.

See Sections 7 and 11 for further information.

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 flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Instructions for Inhalation:

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

Instructions for Ingestion:

Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

5 Fire Fighting Measures

Flash point:	Approximately 4.44 C TCC
Lower Explosive Limit (%):	Not available
Upper Explosive Limit (%):	Not available
Autoignition temperature:	> 400 C

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:

Aldehydes – During Combustion;

Carbon monoxide – During Combustion;

Carbon dioxide – During Combustion;

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).

NFPA: Health 2

NFPA: Fire 3

NFPA: Reactivity	0
NFPA: Unusual Reaction Hazard	none

6 Accidental Release Measures

Personal Precautions:

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.

Spill Response:

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. 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.

Avoid

contact with water. Avoid contact with incompatible materials listed in the Reactivity Data Section. 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. 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. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

7 Handling and Storage

Storage Requirements:

No data available.

Incompatible Materials:

Store away from heat; Store out of direct sunlight. Store away from acids; Store away from oxidizing agents. Amines; Alcohols; Water;

Ventilation:

Keep container in well-ventilated area.

Fire Prevention:

Ground containers securely when transferring contents. Wear low static or properly grounded shoes. No smoking while handling this material.

Explosion Prevention:

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

Static Prevention:

Avoid static discharge.

Use Instructions:

Keep container tightly closed. For industrial or professional use only. Avoid contact with oxidizing agents.

8 Exposure Controls/Personal Protection

Personal Protection

Eye Protection:

Avoid eye contact. 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:

Avoid skin contact with hot material. Wear PE/EVAL laminate gloves

with forearm length nitrile overgloves.

Skin Protection:

Avoid skin contact.

Respiratory Protection:

Avoid breathing of vapours, mists or spray. Avoid breathing of vapours created during the cure cycle. Select one of the following

approved respirators based on airborne concentration of contaminants and in accordance with regulations: Half facepiece

or

fullface air-purifying respirator with organic vapor cartridges.

Ingestion (Prevention):

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

Recommended Ventilation:

Use with appropriate local exhaust ventilation. Provide appropriate

local exhaust ventilation on open containers. Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Provide appropriate local exhaust when product is heated. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment.

Ingredient Exposure Data

TOLUENE (108-88-3)

Specific Ingredient Data

LC50 (female rat, inhalation/4 hours vapour):	19.0 mg/l
LD50 (rat, oral)	636 mg/kg
LD50 (dermal, rabbit)	14100 uL/kg
LC50 (rat, inhalation/4 hours)	No data available.

Exposure Limits

ACGIH: TWA 20 ppm (Table A4)

CMRG: STEL 75 ppm (skin contact contributes to exposure)

BISPHENOL A - EPICHLOROHYDRIN COPOLYMER (25068-38-6)

LD50 (rat, oral) 11400 mg/kg

LD50 (dermal, rabbit) 23.4 g/kg

LC50 (rat, inhalation/4 hours) > 791 mg/m³

Exposure Limits

No data available.

UREA, POLYMER WITH FORMALDEHYDE AND 1,3,5-TRIAZINE-2,4,6-TRIAMINE
(25036-13-9)

Specific Ingredient Data

No data available.

LD50 (rat, oral) No data available.

LC50 (rat, inhalation/4 hours) No data available.

Exposure Limits

No data available.

4,4'-TRIMETHYLENEDIPIPERIDINE (16898-52-5)

Specific Ingredient Data

3M(TM) FASTENER ADHESIVE 2510 ORANGE

Page 6 of 10

No data available.

LD50 (rat, oral) No data available.

LC50 (rat, inhalation/4 hours) No data available.

Exposure Limits

No data available.

VINYL BUTYRAL-VINYL ACETATE-VINYL ALCOHOL POLYMER (27360-07-2)

Specific Ingredient Data

No data available.

LD50 (rat, oral) No data available.

LC50 (rat, inhalation/4 hours)	No data available.
Exposure Limits	
No data available.	
N-BUTYL GLYCIDYL ETHER (2426-08-6)	
LD50 (rat, oral)	1660 mg/kg
LD50 (dermal, rabbit)	2520 uL/kg
LC50 (rat, inhalation/4 hours)	No data available.
Exposure Limits	
ACGIH: TWA 3 ppm (skin contact contributes to exposure)	
Sensitizer;	
SILICA GEL (63231-67-4)	
Specific Ingredient Data	
No data available.	
LD50 (rat, oral)	No data available.
LC50 (rat, inhalation/4 hours)	No data available.
Exposure Limits	
CMRG: TWA 2 mg/m ³	
ISOPROPYL ALCOHOL (67-63-0)	
LD50 (rat, oral)	5045 mg/kg
LD50 (dermal, rabbit)	12.9 g/kg
LC50 (rat, inhalation/4 hours)	17000 ppm
Exposure Limits	
ACGIH: TWA 200 ppm (Table A4)	
ACGIH: STEL 400 ppm (Table A4)	
2-ETHYL-4-METHYL-IMIDAZOLE (931-36-2)	
Specific Ingredient Data	
No data available.	
LD50 (rat, oral)	No data available.
LC50 (rat, inhalation/4 hours)	No data available.
Exposure Limits	
No data available.	
C.I. PIGMENT ORANGE 36 (12236-62-3)	
Specific Ingredient Data	
No data available.	
LD50 (rat, oral)	No data available.
LC50 (rat, inhalation/4 hours)	No data available.

Exposure Limits

No data available.

3M(TM) FASTENER ADHESIVE 2510 ORANGE

Page 7 of 10

9 Physical and Chemical Properties

Physical form,Color ,Odour :	Liquid; suspension; orange;
Odour Threshold:	No data available.
pH:	Not applicable
Boiling point/boiling range:	87.78 – 110 C
Melting point/melting range:	Not applicable
Vapour pressure:	Approximately 30 mmHg
Water Solubility:	Negligible
Specific gravity:	Approximately 1 Water=1
Vapour density:	2 – 3 Air=1
Volatile organic compounds:	480 gms/liter SCAQ443
Evaporation rate:	Not available
Viscosity:	Approximately 1300
centistoke	
Percent Volatile:	48 % by weight

10 Stability and Reactivity

Conditions to Avoid:

Store away from heat;
Store out of direct sunlight.

Materials to Avoid:

Amines; Alcohols; Water; Store away from acids; Store away from oxidizing agents.

Hazardous Decomposition:

Aldehydes – During Combustion;
Carbon monoxide – During Combustion;
Carbon dioxide – During Combustion;

Stability and Reactivity:

Stable. Hazardous polymerization will not occur.

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:

Severe Skin Irritation: signs/symptoms can include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

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

Effects from Inhalation:

Upper 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.

Effects from Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal

pain, nausea, diarrhea and vomiting.

Chemical (Aspiration) Pneumonitis: Signs/symptoms can include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish colored skin (cyanosis), and possibly death.

May be absorbed following ingestion and cause target organ effects.

Sensitization Information:

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

Carcinogenicity:

No data available.

Mutagenicity:

No data available.

Reproductive Effects:

TOLUENE (108-88-3): can cause birth defects or other reproductive harm.

Component Based Information:

No data available.

Product Based Information:

No data available.

Other Effects & Information:

Liver Effects: Signs/symptoms may include loss of appetite, weight

loss, fatigue, weakness, abdominal tenderness and jaundice.

Central Nervous System (CNS) Depression: Signs/symptoms may include

headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

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

12 Ecological Information

Environmental Data:

Ecotoxicity Data:

Not determined.

Ecofate Data:

Not determined.

Special statements for 2001/58/EC:

One or more components of this product have significant known or predicted environmental hazards, but a conservative assessment indicates a low environmental risk. Intended use and proper disposal are unlikely to cause the environmentally hazardous component(s) to enter the environment in quantities or by routes that could cause the adverse environmental impacts.

Other Effects and Information:

Product usages, or other lifecycle stages, are expected to release

volatile organic compounds (VOCs) to the atmosphere. Regulations

may restrict the release of VOCs because they contribute to the formation of ozone and smog. Regulatory definitions for VOC vary. Because of smog and other impacts, releases through evaporation or other means should be minimized to the extent possible.

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.

Product Packaging:

No data available.

Special Instructions:

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

14 Transportation Information

Transportation of Dangerous Goods

TDG Classification:	Regulated Material.
Proper Shipping Name:	ADHESIVES
Class/Division:	3.0
UN Number:	UN 1133
Packing Group:	II

Special Information:: Contact 3M for more information.

These transportation classifications are provided as a customer

service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling, or marking requirements. The original 3M package is certified for Canadian ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory requirements.

International Dangerous Goods Classification

3M(TM) FASTENER ADHESIVE 2510 ORANGE

Page 10 of 10

15 Regulatory Information

WHMIS Classification: B2, D2A, D2B

NOTE:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS

contains all the information required by the CPR.

Product Certifications:

The product on this MSDS, or all its components, is included on the

following countries' chemical inventories, as noted:

AICS - Australian Inventory of Chemical Substances

DSL - Domestic Substances List (Canada)

EINECS - European Inventory of Existing Commercial Chemical Substances

TSCA - Toxic Substances Control Act (USA)

CICS - Chinese Inventory of Chemical Substances

16 Other Information

Reason for Reissue:

The following Sections and topics have been updated or revised:

Update Tradename

The information in this Material Safety Data Sheet (MSDS) is believed

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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.

---End---