

# **Safety Data Sheet**

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 12/13/18

# **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>TM</sup> Plastic and Emblem Adhesive - Clear PN 03601 & 33601

#### **Product Identification Numbers**

 $60-4550-3263-5, 60-4550-3264-3, 60-4550-4834-2, 60-4550-5366-4, 60-4550-5621-2, 60-4550-5677-4, 60-4550-9186-2, 60-4551-0061-4, 70-0713-4940-4, 70-0713-4941-2\\ 7010364266, 7100045880, 7010294867, 7100158731$ 

### 1.2. Recommended use and restrictions on use

### Recommended use

Automotive, Adhesive for plastic repair and emblem application

1.3. Supplier's details

MANUFACTURER: 3M

**DIVISION:** Automotive Aftermarket

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

**Telephone:** 1-888-3M HELPS (1-888-364-3577)

## 1.4. Emergency telephone number

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

# **SECTION 2: Hazard identification**

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

### 2.1. Hazard classification

Flammable Liquid: Category 2.

Serious Eve Damage/Irritation: Category 2A.

Skin Sensitizer: Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

# 2.2. Label elements

Signal word

Danger

## **Symbols**

Flame | Exclamation mark |





#### **Hazard Statements**

Highly flammable liquid and vapor.

Causes serious eye irritation. May cause an allergic skin reaction.

May cause drowsiness or dizziness.

## **Precautionary Statements**

#### General:

Keep out of reach of children.

#### **Prevention:**

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

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

### **Response:**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

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

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

# Storage:

Store in a well-ventilated place. Keep cool.

Keep container tightly closed.

Store locked up.

### Disposal:

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

20% of the mixture consists of ingredients of unknown acute oral toxicity.

41% of the mixture consists of ingredients of unknown acute inhalation toxicity.

# **SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
Methyl Ethyl Ketone	78-93-3	30 - 60 Trade Secret *
Vinyl Chloride, Vinyl Acetate, Maleic Acid Polymer	32650-26-3	15 - 40 Trade Secret *
Thermoplastic Polyester	Trade Secret*	15 - 40 Trade Secret *
4,4'-isopropylidenediphenol-epichlorohydrin polymer	25068-38-6	0.1 - 1 Trade Secret *

<sup>\*</sup>The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret

# **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

#### Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

#### **Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

## **Eye Contact:**

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

#### If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

# 4.3. Indication of any immediate medical attention and special treatment required

Not applicable

# **SECTION 5: Fire-fighting measures**

## 5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

# 5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

# **Hazardous Decomposition or By-Products**

Substance
Carbon monoxide
Carbon dioxide

Condition

**During Combustion During Combustion** 

#### 5.3. Special protective actions for fire-fighters

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 clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

# **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

## 6.3. Methods and material for containment and cleaning up

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. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. 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 SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

# **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

### 7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidizing agents.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	<b>Additional Comments</b>
Methyl Ethyl Ketone	78-93-3	ACGIH	TWA:200 ppm;STEL:300 ppm	
Methyl Ethyl Ketone	78-93-3	OSHA	TWA:590 mg/m3(200 ppm)	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

OSHA: United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Use explosion-proof ventilation equipment. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

#### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

**Indirect Vented Goggles** 

#### Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Butyl Rubber

Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

# **Respiratory protection**

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

General Physical Form: Liquid

Odor, Color, Grade:clear, ketone odorOdor thresholdNo Data AvailablepHNo Data AvailableMelting pointNo Data Available

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Boiling Point176 °F [Details: CONDITIONS: (MEK)]Flash Point20 °F [Test Method: Tagliabue Closed Cup][Details: CONDITIONS: (methyl ethyl ketone)]

**Evaporation rate** 2.7 [Ref Std:WATER=1]

Flammability (solid, gas)

Flammable Limits(LEL)

Flammable Limits(UEL)

Not Applicable
1.80 % volume
10 % volume

Vapor Pressure 91 mmHg [Details: CONDITIONS: @ 68F]

Vapor Density 2.41 [Ref Std: AIR=1]

**Density** 0.950 g/ml

Specific Gravity 0.95 [Ref Std:WATER=1]

Solubility in Water Slight (less than 10%) [Details: Very slight]

Solubility- non-waterNo Data AvailablePartition coefficient: n-octanol/ waterNo Data AvailableAutoignition temperature404 °C [Details:MEK]Decomposition temperatureNo Data Available

Viscosity Approximately 8,500 centipoise

Hazardous Air Pollutants< 0.0001 lb HAPS/lb solids</th>[Test Method: Calculated]Volatile Organic Compounds552 g/l [Test Method: calculated SCAQMD rule 443.1]Volatile Organic Compounds58.1 % weight [Test Method: calculated per CARB title 2]

Percent volatile 58.1 % weight

VOC Less H2O & Exempt Solvents 552 g/l [Test Method:calculated SCAQMD rule 443.1]

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

#### 10.2. Chemical stability

Stable.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Sparks and/or flames

Heat

## 10.5. Incompatible materials

Not determined

## 10.6. Hazardous decomposition products

Substance

None known.

Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

# **SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be

present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

#### 11.1. Information on Toxicological effects

## Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### **Inhalation:**

May be harmful if inhaled.

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

May cause additional health effects (see below).

#### **Skin Contact:**

Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

#### **Eye Contact:**

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

# **Ingestion:**

May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

## **Additional Health Effects:**

## Single exposure may cause 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.

## **Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

# **Acute Toxicity**

Name	Route	Species	Value
Overall product	Inhalation- Vapor(4 hr)		No data available; calculated ATE20 - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Methyl Ethyl Ketone	Dermal	Rabbit	LD50 > 8,050 mg/kg
Methyl Ethyl Ketone	Inhalation- Vapor (4 hours)	Rat	LC50 34.5 mg/l
Methyl Ethyl Ketone	Ingestion	Rat	LD50 2,737 mg/kg
Thermoplastic Polyester	Dermal		LD50 estimated to be > 5,000 mg/kg
Thermoplastic Polyester	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Dermal	Rat	LD50 > 1,600 mg/kg
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	Rat	LD50 > 1,000 mg/kg

ATE = acute toxicity estimate

## Skin Corrosion/Irritation

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3M <sup>TM</sup> Plastic and	<b>Emblem</b>	Adhesive -	Clear	PN 03601	& 33601
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Name	Species	Value
Methyl Ethyl Ketone	Rabbit	Minimal irritation
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Rabbit	Mild irritant

## **Serious Eve Damage/Irritation**

Name	Species	Value
Methyl Ethyl Ketone	Rabbit	Severe irritant
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Rabbit	Moderate irritant

## **Skin Sensitization**

Name	Species	Value
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Human	Sensitizing
	and	
	animal	

# **Respiratory Sensitization**

Name	Species	Value
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Human	Not classified

# Germ Cell Mutagenicity

Name	Route Value	
Methyl Ethyl Ketone	In Vitro	Not mutagenic
4,4'-isopropylidenediphenol-epichlorohydrin polymer	In vivo	Not mutagenic
4,4'-isopropylidenediphenol-epichlorohydrin polymer	In Vitro	Some positive data exist, but the data are not
		sufficient for classification

# Carcinogenicity

Name	Route	Species	Value
Methyl Ethyl Ketone	Inhalation	Human	Not carcinogenic
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

# Reproductive Toxicity

# Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Methyl Ethyl Ketone	Inhalation	Not classified for development	Rat	LOAEL 8.8 mg/l	during gestation
4,4'-isopropylidenediphenol- epichlorohydrin polymer	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-isopropylidenediphenol- epichlorohydrin polymer	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-isopropylidenediphenol- epichlorohydrin polymer	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesi s
4,4'-isopropylidenediphenol- epichlorohydrin polymer	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation

# Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Methyl Ethyl Ketone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classifica tion	NOAEL Not available	

Methyl Ethyl Ketone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Methyl Ethyl Ketone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
Methyl Ethyl Ketone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable
Methyl Ethyl Ketone	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 1,080 mg/kg	not applicable

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Methyl Ethyl Ketone	Dermal	nervous system	Not classified	Guinea pig	NOAEL Not available	31 weeks
Methyl Ethyl Ketone	Inhalation	liver   kidney and/or bladder   heart   endocrine system   gastrointestinal tract   bone, teeth, nails, and/or hair   hematopoietic system   immune system   muscles	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Methyl Ethyl Ketone	Ingestion	liver	Not classified	Rat	NOAEL Not available	7 days
Methyl Ethyl Ketone	Ingestion	nervous system	Not classified	Rat	NOAEL 173 mg/kg/day	90 days
4,4'- isopropylidenediphenol- epichlorohydrin polymer	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'- isopropylidenediphenol- epichlorohydrin polymer	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'- isopropylidenediphenol- epichlorohydrin polymer	Ingestion	auditory system   heart   endocrine system   hematopoietic system   liver   eyes   kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

## **Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

# **SECTION 12: Ecological information**

## **Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

## **Chemical fate information**

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

# **SECTION 13: Disposal considerations**

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#### 13.1. Disposal methods

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

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

# **SECTION 14: Transport Information**

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

# **SECTION 15: Regulatory information**

## 15.1. US Federal Regulations

Contact 3M for more information.

#### **EPCRA 311/312 Hazard Classifications:**

## Physical Hazards

Flammable (gases, aerosols, liquids, or solids)

## **Health Hazards**

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

# 15.2. State Regulations

Contact 3M for more information.

#### 15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

This SDS 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: 3 Instability: 0 Special Hazards: None

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.

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