### 3M MATERIAL SAFETY DATA SHEET 3M Brand Adhesion Promoter #4298 and #6396 1/10/2006

## **Material Safety Data Sheet**

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## **SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: 3M Brand Adhesion Promoter #4298 and #6396 MANUFACTURER: 3M DIVISION: Automotive 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: 1/10/2006 Supercedes Date: 12/14/2004 Document Group: 19-6313-1 Product Use: Specific Use: Adhesion promoter for use with attachment tapes.

## **SECTION 2: INGREDIENTS**

Ingredient C.A.S. No. % by Wt CYCLOHEXANE 110-82-7 48 XYLENE 1330-20-7 24 - 29 ETHYL ALCOHOL 64-17-5 7 ACRYLATE POLYMER (NJTSRN 04499600-5984P) Trade Secret 1 - 5 CHLORINATED RUBBER 68609-36-9 1 - 5 ETHYLBENZENE 100-41-4 0 - 5 ETHYL ACETATE 141-78-6 3 EPOXY RESIN 25068-38-6 < 0.5 TOLUENE 108-88-3 < 0.3

## SECTION 3: HAZARDS IDENTIFICATION 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Sponge holding approximately 2 milliliters of liquid. **Odor, Color, Grade:** Liquid: yellow, solvent odor, absorbed onto a sponge. Physical properties reflect the liquid only.

### General Physical Form: Liquid

**Immediate health, physical, and environmental hazards:** Flammable liquid and vapor. May cause allergic skin reaction.

Contains a chemical or chemicals which can cause cancer. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

## **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:

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

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. May be absorbed through skin and cause target organ effects.

### 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.

### Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting. Chemical (Aspiration) Pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty

breathing, bluish colored skin (cyanosis), and may be fatal.

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.

Prolonged or repeated exposure may cause:

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

jaundice.

Kidney Effects: Signs/symptoms may include reduced or absent urine production, increased serum creatinine, lower back

pain, increased protein in urine, and increased blood urea nitrogen (BUN).

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

### **Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

### Ingredient C.A.S. No. Class Description Regulation

ETHYL ALCOHOL 64-17-5 Group 1 International Agency for Research on Cancer

ETHYLBENZENE 100-41-4 Group 2B International Agency for Research on Cancer

## SECTION 4: FIRST AID MEASURES 4.1 FIRST AID PROCEDURES

## **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. Give victim two glasses of water. Never give anything by mouth to an unconscious

person. Get immediate medical attention.

## **SECTION 5: FIRE FIGHTING MEASURES** 5.1 FLAMMABLE PROPERTIES

**Autoignition temperature** 430 °C

Flash Point 34 °F [*Test Method:* SETAFLASH]

Flammable Limits - LEL 1 % [Test Method: Estimated]

Flammable Limits - UEL 6 % [Test Method: Estimated]

OSHA Flammability Classification: Class IB 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:** 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 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. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use

only non-sparking tools. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container

approved for transportation by appropriate authorities. Seal the container. 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

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. For industrial or professional use

only. Avoid contact with oxidizing agents. 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.

## 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**

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 Eve/Face Protection

Avoid eye contact.

The following eye protection(s) are recommended: Safety Glasses with side shields. 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: Fluoroelastomer (Viton),

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. 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**

Ingredient Authority Type Limit Additional Information

CYCLOHEXANE ACGIH TWA 100 ppm

CYCLOHEXANE OSHA TWA 300 ppm Table Z-1

ETHYL ACETATE ACGIH TWA 400 ppm

ETHYL ACETATE OSHA TWA 400 ppm Table Z-1

ETHYL ALCOHOL ACGIH TWA 1000 ppm Table A4

ETHYL ALCOHOL OSHA TWA 1000 ppm Table Z-1

ETHYLBENZENE ACGIH TWA 100 ppm Table A3 ETHYLBENZENE ACGIH STEL 125 ppm Table A3

ETHYLBENZENE OSHA TWA 100 ppm Table Z-1A

ETHYLBENZENE OSHA STEL 125 ppm Table Z-1A

TOLUENE ACGIH TWA 50 ppm Skin Notation\*; Table A4

TOLUENE CMRG STEL 75 ppm Skin Notation\*

TOLUENE OSHA TWA, Vacated 100 ppm

TOLUENE OSHA STEL, Vacated 150 ppm

TOLUENE OSHA TWA 200 ppm Table Z-2

TOLUENE OSHA CEIL 300 ppm Table Z-2

XYLENE ACGIH TWA 100 ppm Table A4

XYLENE ACGIH STEL 150 ppm Table A4

XYLENE OSHA TWA 100 ppm Table Z-1A

XYLENE OSHA STEL 150 ppm Table Z-1A

\* 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.

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: Sponge holding approximately 2 milliliters of liquid.
Odor, Color, Grade: Liquid: yellow, solvent odor, absorbed onto a sponge. Physical properties reflect the liquid only.
General Physical Form: Liquid
Autoignition temperature 430 °C
Flash Point 34 °F [*Test Method:* SETAFLASH]

Flammable Limits - LEL 1 % [*Test Method:* Estimated] Flammable Limits - UEL 6 % [*Test Method:* Estimated] Boiling point >=170 °F [*Test Method:* Estimated] [*Details:* (initial)] Density 8.2 lb/gal Vapor Density 1.7 [*Test Method:* Estimated] [*Ref Std:* AIR=1] Vapor Pressure 122 mmHg [@ 20 °C] Specific Gravity 0.82 pH Not Applicable Melting point Not Applicable Solubility In Water 10 % Evaporation rate 6.4 [*Test Method:* Estimated] [*Ref Std:* XYLENE=1] Volatile Organic Compounds 668 g/l [*Test Method:* South Cost Air Qual Mgmt Dist] Percent volatile 94 % VOC Less H2O & Exempt Solvents 755 g/l [*Test Method:* South Cost Air Qual Mgmt Dist] Viscosity 30 - 40 centipoise

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable. **Materials and Conditions to Avoid:** Heat; Sparks and/or flames **Hazardous Polymerization:** Hazardous polymerization will not occur.

## Hazardous Decomposition or By-Products

Substance Condition Carbon monoxide During Combustion Carbon dioxide During Combustion

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

## SECTION 14:TRANSPORT INFORMATION

3M TRANSPORTATION CLASSIFICATION REPORT ID Number(s): 70-0706-9724-1 Product Description: 4298 Adhesion Promoter 4 oz Dauber Can Protective Service During Transit: Protective Service Not Required NMFC Description: Resin Compounds NMFC Item Number: 046030 Sub: 00 Class:55 Agency: DOTG – Department of Transportation – Ground (United States) UN1866, Resin Solution, 3, II, Limited Quantity

- Agency: DOTW Department of Transportation Vessel (United States) UN1866, Resin Solution, 3, II, Limited Quantity, +001C
- Agency: IATA International Air Transport Association (United Nations) UN1866, Resin Solution, 3, II
- Agency: IMO- International Maritime Organization (United Nations) UN1866, Resin Solution, 3, II, Limited Quantity, +001C

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 U.S. ground shipment only. If you are shipping by air or ocean, the package may not meet applicable regulatory

requirements.

## SECTION 15: REGULATORY INFORMATION US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No 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):

**Ingredient C.A.S. No % by Wt** ETHYLBENZENE 100-41-4 0 - 5 CYCLOHEXANE 110-82-7 48 XYLENE 1330-20-7 24 - 29

This material contains a chemical which requires export notification under TSCA Section 12[b]: Ingredient (Category if applicable) C.A.S. No Regulation Status

CYCLOHEXANE 110-82-7 Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals Applicable ETHYL ACETATE 141-78-6 Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals Applicable

## STATE REGULATIONS

Contact 3M for more information.

## **CALIFORNIA PROPOSITION 65**

### Ingredient C.A.S. No. Classification

TOLUENE 108-88-3 \*Developmental Toxin

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

### **CHEMICAL INVENTORIES**

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

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS),

or are exempt polymers whose monomers are listed on EINECS.

Contact 3M for more information.

### **INTERNATIONAL REGULATIONS**

Contact 3M for more information.

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: 3 Reactivity: 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.

### **HMIS Hazard Classification**

Health: 2 Flammability: 3 Reactivity: 0 Protection: X - See PPE section.

Hazardous Material Identification System (HMIS(r)) hazard ratings are designed to inform employees of chemical hazards in the workplace. These

ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency

situations. HMIS(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and

Coatings Association (NPCA).

Revision Changes:

Section 14: ID Number(s) was modified.

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