

MATERIAL SAFETY DATA SHEET

P/N:

129600001000CAM

PRODUCT IDENTITY: Rubber Adhesive (Halogenated Solvent)
Common Name: Rubber Cement

Manufacturer: Pax Motive Industrial Co., Ltd.
Address: No. 105, Yi Shin 2 Road
Taiping TaiChung Hsein,
Taiwan ROC

MSDS Number: None
CAS Number: None

Date Prepared: 4-20-11

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SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION

| Components-Chemical and Common Names (Hazardous Components 1% or Greater, Carcinogens 0.1% or Greater) | % | OSHA Limits TWA | ACGIH Limits TWA |
|---|-------|--------------------|---------------------|
| Dichloromethane CAS# 75-09-2 | 80-90 | 50 ppm | 50 ppm |
| Petroleum Distillate CAS# 64742-89-8 | 10-15 | 300 ppm | 300 ppm |
| Toluene CAS# 108-88-3 | 0-3 | 200 ppm | 50 ppm |

Non-Hazardous Ingredients: 5-10%

SECTION 2 - PHYSICAL/CHEMICAL CHARACTERISTICS

| | | | |
|-----------------------------------|----------------|------------------|---------|
| Boiling Point | 40°C | Specific Gravity | 1.3 |
| Vapor Pressure (mmHg and Temp) | 6.8 psi @ 20°C | Melting Point | N/A |
| Vapor Density (air=1) | 2.9 | Evaporation Rate | No Data |
| Solubility in Water | nil | Water Retraction | None |
| Appearance and Odor | Solvent Odor | | |

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method None Auto-Ignition Temp 1223°F
Flammability Limits in Air by Volume LEV 14%
UEL 22%

Extinguisher Media Suitable to surrounding media

Special Fire Fighting Procedures SCBA and full protection clothing.

Unusual Fire and Explosion Hazards Seal containers may rupture, explosion hazard, cool with water,
Emits toxic fumes

SECTION 4 - REACTIVITY HAZARD DATA

Stability Conditions to Avoid Heat Above 100°F

Stable

Unstable

Incompatibility (Material to Avoid) Alkali metals, Aluminum

Hazardous Decomposition Products Solvent Vapors, Smoke, Soot, CO₂, CO, HCl, Phosgene

Hazardous Polymerization Conditions to Avoid N/A

May Occur

Will Not Occur

SECTION 5 - HEALTH HAZARD DATA

Primary Routes of Entry

Inhalation

Ingestion

Carcinogen Listed In

NTP

OSHA

Skin Absorption

Not Hazardous

IARC Monograph

Not Listed

Health Hazards: Summary of Health Hazards

Eye Contact: Causes severe irritation. Corneal opacification and vascularization can occur. vapors and/or mists can cause mild to moderate irritation. Can cause conjunctivitis and Iritis.

Skin Irritation: Can cause mild to moderate irritation. Prolonged or repeated contact can defat the skin, cause irritation, and lead to the development of dermatitis.

Inhalation: Can cause irritation to the nose, throat, and upper respiratory tract. Inhalation can cause dizziness, headaches, and incoordination. Nausea, vomiting, and gastrointestinal upset can occur. Can cause anesthetic and/or narcotic effects.

Ingestion: Ingestion causes severe irritation of the mouth, throat, and esophagus. Can cause nausea, vomiting, and gastrointestinal upset. Dizziness, faintness, drowsiness, and incoordination(ataxia) can occur.

Additional Effects (Target Organs): Liver. Kidney. Central and/or peripheral nervous system. Blood and/or hematopoietic system. Respiratory system. Eye.

Aggravation of Existing Conditions: Liver. Kidney. Nervous system (central and/or peripheral). Heart or cardiovascular system. Skin.

Toxicological Information on hazardous components:

Dichloromethane

Toxic Effects: Moderately to severely irritating to the ocular tissues. Prolonged or repeated skin contact can cause dermatitis. Ingestion causes nausea, vomiting, severe gastrointestinal distress, and CNS depression, irritating to the upper respiratory tract. Causes nausea, vomiting, dizziness, and blurred vision. Liver and kidney injury following exposure have been reported.

Acute Toxicity Studies:

| | |
|----------------|--------------------------------|
| Oral-Rat | LD50: 1600 mg/kg |
| Oral-Human | LD50: 357 mg/Kg |
| Dermal-Rabbit | LD50: 810 mg/24hr |
| Inhalation-Rat | LC50: 88gm/m ³ /30r |

Chronic Toxicity Studies: The longterm ingestion of dichloromethane produced liver and kidney damage in mice. Chronic ingestion has produced hepatocellular carcinomas in mice reproductive effects and mononuclear cell leukemia has been observed in rats following chronic exposure by inhalation.

Carcinogenicity - Listed By: ACGIH: Category A3- Animal carcinogen IARC: Group 2B- Possible Human Carcinogen NTP: Anticipated Carcinogen

Petroleum Distillate

Toxic Effects: Moderately to severely irritating to the ocular tissues. Prolonged or repeated skin contact can cause dermatitis. Ingestion causes nausea, vomiting, severe gastrointestinal distress, and CNS depression, irritating to the upper respiratory tract. Causes nausea, vomiting, dizziness, and blurred vision. Liver and kidney injury following exposure have been reported.

Acute Toxicity Studies:

| | |
|----------------|------------------------|
| Oral-Rat | LD50: 4300 mg/kg |
| Inhalation-Rat | LC50: 5000 ppm/4 hours |

Eye and/or Skin Irritation Studies: Eye irritation when instilled into the eyes of rabbits.

Carcinogenicity - Listed By: ACGIH: No IARC Monographs: NTP Annual Report: No OSHA: No

Toluene

Toxic Effect: Eye contact can produce irritation; possibly corneal burns. Skin contact can cause irritation, defatting of the skin and dermatitis. Ingestion can produce central nervous system depression. Large doses can produce metabolic acidosis, liver and kidney damage, ventricular irregularities and convulsion. Inhalation of vapors produces upper respiratory tract irritation, CNS depression. Liver and kidney damage has been reported after exposure to high vapor concentration. Toluene has also been shown to induce cardiac sensitization.

Acute Toxicity Studies:

| | |
|----------------|---------------------|
| Oral-Rat | LD50: 4300 mg/Kg |
| Dermal-Rabbit | LD50: 12,124 mg/kg |
| Inhalation-Rat | LD50: 5320 ppm/8hrs |

Chronic Toxicity Studies: The results of several studies indicate that toluene is not carcinogenic by inhalation (maximum concentration 300 ppm) or by skin application.

Other Toxicity Studies: Toluene was found not to be mutagenic when tested in the ames test, mouse lymphoma cell assay, micronucleus test in mice, and in the mouse dominant lethal assay. Equivocal results have been reported with regard to the teratogenic effects of toluene.

Carcinogenicity - Listed By: ACGIH: No IARC Monographs: No NTP Annual Report: No OSHA: No

SECTION 6 - CONTROL AND PROTECTIVE MEASURES:

Eye Protection: Wear chemical splash goggles. An eye wash facility should be readily available.
Skin Protection: Wear protection clothing and appropriate impervious gloves. Because a variety of protective gloves exist. Always consult glove manufacturer to determine the proper type of specific operation.

Respiratory Protection: Avoid breathing vapor and/or mist. When established airborne exposure limits are surpassed (see airborne exposure limits in this section). Wear NIOSH/MSHA approved equipment. Determine the appropriate type equipment for specific application by consulting the respirator manufacturer. Observe the respiratory use limitations specified by NIOSH/MSHA or the manufacturer. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator. In addition, respirator protection programs must be in compliance with 29 CFR 1010.134.

Ventilation: Maintain airborne concentrations below the established exposure limits (see airborne exposure limits in this section). General (dilution) ventilation may be acceptable. However, local exhaust ventilation is recommended when vapors, mists, or dusts can be released.

Personal Hygiene: Wash thoroughly after handling, especially before eating, drinking, smoking, or using restroom facilities. Wash contaminated goggles, faceshield, and gloves. Professionally launder contaminated clothing. Discard contaminated shoes.

SECTION 7 - FIRE PROTECTION INFORMATION

Flash Point and Method: None Auto-Ignition Temp 1223°F
Flammability Limits in Air by Volume: LEV 14%
UEL 22%

Extinguisher Media: Dry chemical CO₂ for small, water spray/FOG or standard foam for large combustion should be equipped with NIOSH approved positive pressure self-contained breathing apparatus (SCBA) and full protective clothing.

Special Fire Fighting Procedures: Fire fighters and others who may be exposed to the products of unusual fire and explosion hazards: When exposed to flames or high temperatures encountered during fire conditions, sealed containers may rupture because of the build up of internal pressure. Cool containers with water. Vapors may be heavier than air and may travel considerable distances from the material handling point. Vapors and decomposition products are toxic.

SECTION 8 - REACTIVITY DATA

Stability Conditions to Avoid Heat above 100°F

- Stable
 Unstable

Materials to Avoid: Alkali metals, aluminum

Thermal Decomposition Products: If heated to high temperatures, this product may emit the following compounds: Flammable solvent vapors and smoke, soot, and toxic fumes (e.g. carbon dioxide, HCl, phosgene and carbon monoxide).

Hazardous Polymerization Conditions to Avoid: N/A

- May Occur
 Will Not Occur

SECTION 9 - SPILL AND LEAK PROCEDURES

Response to Spills: Stop discharge, if it can be performed safely, and contain material. If a substantial quantity spilled, recover with pump or vacuum truck. Explosion-proof equipment should be used if this product is flammable or combustible (see section 7). Otherwise, use an absorbent such as Fuller's Earth Clay, or other appropriate synthetic absorbent. Place contaminated material in a suitable container for disposal. Appropriate safety measures and protective equipment should be used (see section 6). Do not flush to streams, rivers, or other bodies of water.

Precautions: Eliminate all sources of ignition. If the airborne concentration exceeds established exposure limits (TLV or PEL), or if high airborne concentrations can occur, evacuate employees and ventilate the area. A supplied air respirator or self-contained breathing apparatus (SCBA), should be used for entry into enclosed spaces, or in areas with inadequate ventilation.

Disposal Methods: If discarded in its original unused form, this product exhibits the characteristics of a RCRA hazardous waste as defined under 40 CFR 261.2.1 (i.e. IGNITABLE - D001). Therefore, it must be managed (stored/treated/disposed/etc.) at a properly permitted facility, in compliance with all applicable federal, state, and local requirements. Be sure to contact the appropriate government environment agencies if further guidance is required. Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability: (1) recycle or rework if at all feasible; (2) incinerate at an authorized facility, or; (3) treat at an acceptable waste treatment facility.

SECTION 10 - SPECIAL PRECAUTIONS:

Recommended Storage Practice and Conditions: Store in cool, dry, well ventilated area. Do not store near heat or ignition sources, or in direct sunlight. Always keep containers tightly closed to avoid contamination. Special warning: Hot organic chemical vapors or mist can suddenly and without warning combust when mixed with air. Ignition can occur at typical elevated temperature process conditions. Any proposed use in such processes should be evaluated thoroughly to assure safe operating conditions. Do not store above: 100°F.

Container Use Precautions: Containers should be supported and grounded before opening. Dispensing, mixing, pouring, and emptying. Open with non-sparking tools. If the container is warm, open bung slowly to release internal pressure.

Empty Container Precautions: This container is hazardous when empty. Do not use heat, sparks, open flames, torches, or cigarettes on or near empty container. Empty containers can retain product residues. Do not reuse empty container for food, clothing, or products for human or animal consumption or where skin contact may occur.

Supplemental Section 10 Information: HMIS/NFPA classification - Health: 2*; Flammability: 3; Reactivity: 0. *Chronic Effects.

SECTION 12 - LABEL AND TRANSPORTATION INFORMATION

DOT Shipping Name:
DOT Label:

Adhesives
Combustible Liquid

SECTION 13 - REGULATORY INFORMATION

Toxic Substance Control Act (TSCA): Chemical component(s) in this product are on the section 8(b) Chemical Substance inventory lists (40 CFR 710)

SARA Title III Information

Section 313 - Toxic Chemicals: Pursuant to section 313 of SARA Title III, this product contains one or more toxic chemicals that are present in a concentration in excess of 1 percent of the mixture (0.1 percent, if the listed toxic chemical is a carcinogen).
Dichloromethane Petroleum Distillate

Section 302 - Extremely Hazardous Substances: Pursuant to section 302 of SARA Title III, this product does not contain an extremely hazardous substance.

Section 311/312 - Hazard Categories: Pursuant to section 311/312 of SARA Title III, this physical and health hazard categories for this product are identified below:

- Fire Hazard: No
- Sudden Release of Pressure Hazard: Yes
- Reactivity Hazard: No
- Immediate (Acute) Health Hazard: Yes
- Delayed Chronic (Health Hazard): Yes

SECTION 14 - USERS RESPONSIBILITY

A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe work place, all aspects of an individual operation should be examined to determine if, or where, precautions - In addition to those described herein - are required. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be.

Disclaimer of Liability: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder, with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.