

Section V — Reactivity Data

Stability	Unstable	X	Conditions to Avoid CAN FORM POTENTIALLY EXPLOSIVE PEROXIDES UPON LONG-STANDING
	Stable		IN AIR.

Incompatibility (Materials to Avoid) **STRONG OXIDIZERS, STRONG ALKALIES, STRONG ACIDS**

Hazardous Decomposition or Byproducts **CO, CO2, HCl, Cl, KETONES AND OTHER TOXIC GASES**

Hazardous Polymerization	May Occur	X	Conditions to Avoid AVOID HEATING IF PEROXIDES ARE PRESENT
	Will Not Occur		

Section VI — Health Hazard Data

Route(s) of Entry Inhalation? **YES** Skin? **YES** Ingestion? **YES**

Health Hazards (Acute and Chronic) **MAY CAUSE DERMATITIS, IRRITATION AND DRYNESS OF MUCOUS MEMBRANES AND SKIN ON PROLONGED BREATHING OF MIST OR VAPORS OR PROLONGED AND REPEATED CONTACT.**

Carcinogenicity NTP? **NO** IARC Monographs? **NO** OSHA Regulated? **NO**

Signs and Symptoms of Exposure **IRRITATION AND/OR DRYNESS OF SKIN, SORE THROAT, LACRIMATION, SYMPTOMS SIMILAR TO ALCOHOL INEBRIATION AND IN HIGHER CONCENTRATIONS NARCOTIC EFFECTS.**

Medical Conditions Generally Aggravated by Exposure **DERMATITIS, BRONCHITIS, COMMON COLDS.**

Emergency and First Aid Procedures **REMOVE PATIENT TO WELL-VENTILATED AREA, AWAY FROM EXPOSURE TO FUMES: WASH AFFECTED SKIN AREAS THOROUGHLY WITH SOAP AND WATER. USE MOISTURIZING CREAMS FOR EXTREME DRYNESS OF SKIN. IN CASE OF CONTACT WITH EYES FLUSH THOROUGHLY WITH WATER FOR 15 MIN. GET IMMEDIATE MEDICAL ATTENTION IF SWALLOWED, INDUCE VOMITING**

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled **ELIMINATE ALL IGNITION SOURCES, USE ABSORBENT SWEEPING COMPOUND OR SAND TO ABSORB LIQUID SPILL PLACE ABSORBED MATERIAL IN METAL CANS OR CONTAINERS. WASH DOWN SPILL AREA WITH WATER THOROUGHLY**

Waste Disposal Method **DISPOSE CONTAMINATED ABSORBENT IN LANDFILL IN ACCORDANCE WITH FEDERAL STATE, AND LOCAL REGULATION OF ENVIRONMENTAL CONTROL.**

Precautions to Be Taken in Handling and Storing **STORE CONTAINERS AWAY FROM HEAT, SPARKS, OR OTHER IGNITION SOURCES. STORE IN A COOL, DRY PLACE. KEEP CONTAINERS TIGHTLY CLOSED.**

Other Precautions **DO NOT TAKE INTERNALLY; HARMFUL OR FATAL IF SWALLOWED. DO NOT SMOKE IN OR NEAR AREAS OF USE.**

Section VIII — Control Measures

Respiratory Protection (Specify Type) **NONE REQUIRED UNDER NORMAL USE.**

Ventilation	Local Exhaust	YES	Special	N/A
	Mechanical (General)	EXHAUST FANS IN CLOSED QUARTERS	Other	N/A

Protective Gloves **SOLVENT OR OIL RESISTENT RUBBER OR PLASTIC** Eye Protection **SAFETY GLASSES OR FACE SHIELD**

Other Protective Clothing or Equipment **NONE REQUIRED UNDER NORMAL USE.**

Work Hygienic Practices **WASH HANDS THOROUGHLY AFTER USE AND BEFORE EATING OR SMOKING. DO NOT SMOKE WHILE USING OR APPLYING MATERIAL.**

01/13/88 WED 18:00 FAX 519 681 2156

PARABOND®

MATERIAL SAFETY DATA SHEET

Date Revised: MAY 1990

Supersedes: AUG 1993

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. Parabond® urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on this sheet.

SECTION I

MANUFACTURER'S NAME PARABOND® PIPE CEMENT CO., INC. ADDRESS 84 VILLA RD., B-13, SUITE 335, GREENVILLE, SC 29616	Transportation Emergencies: CHEMTREC: (800) 424-9300 Medical Emergencies: (213) 222-3212 (L.A. Poison Center 24 Hour No.) Business: (310) 898-3300
--	---

CHEMICAL NAME and FAMILY Solvent Cement for PVC Plastic Pipe Mixture of PVC Resin and Organic Solvents	TRADE NAME: PARABOND® P-600 CLEAR FORMULA: Proprietary
---	--

SECTION II - HAZARDOUS INGREDIENTS

None of the ingredients below are listed as carcinogens by IARC, NTP or OSHA	CAS#	APPROX %	ACGIH-TLV	ACGIH-STEL	OSHA-PEL	OSHA-STEL
Polyvinyl Chloride Resin (PVC)	NONHAZ	17-27	N/A	250 PPM	200 PPM	280 PPM
Tetrahydrofuran (THF)	108-99-9	55*	200 PPM	300 PPM	200 PPM	300 PPM
Methyl Ethyl Ketone (MEK)	78-93-3	5-15	25 PPM Skin		25 PPM SKIN	
Cyclohexanone	108-94-1					

* Title III Section 313 Supplier Notification: This product contains toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1990 and of 40CFR572. This information must be included in all MSDS's that are copied and distributed for this material.

SHIPPING INFORMATION FOR GALLON CONTAINERS OR ABOVE

DOT Shipping Name:	Adhesive
DOT Hazard Class:	3
Identification Number:	UN 1133
Packaging Group:	II
Label Required:	Flammable Liquid

SPECIAL HAZARD DESIGNATIONS

HEALTH:	HMIS	NFPA	HAZARD RATING
FLAMMABILITY:	2	2	0 - MINIMAL
REACTIVITY:	3	3	1 - SLIGHT
PROTECTIVE EQUIPMENT:	0	1	2 - MODERATE
	H		3 - SERIOUS
			4 - SEVERE

SHIPPING INFORMATION FOR CONTAINERS LESS THAN ONE GALLON

DOT Shipping Name:	Consumer Commodity
DOT Hazard Class:	ORM-D

SECTION III - PHYSICAL DATA

APPEARANCE Clear, regular syrupy liquid	ODOR Ethereal	BOILING POINT (°F/C) 151°F Based on first boiling component: THF
SPECIFIC GRAVITY @ 73 ± 2°F 0.880 ± 0.04	VAPOR PRESSURE (mm Hg) 143 mm Hg. 68sec on first boiling component, THF @ 20°C	PERCENT VOLATILE BY VOLUME (%) Approx 80 - 80 %
VAPOR DENSITY (Air = 1) 2.49	EVAPORATION RATE (BUAC = 1) > 1.0	SOLUBILITY IN WATER Solvent portion completely soluble in water. Resin portion separates out.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT 6°F T.C.C. Based on THF	FLAMMABLE LIMITS (PERCENT BY VOLUME)	LEL 2.0	UEL 11
---	---	-------------------	------------------

FIRE EXTINGUISHING MEDIA
 Aqueous "Purple K" potassium bicarbonate dry chemical, carbon dioxide, National Aer-O-Foam universal alcohol resistant foam, water spray.

SPECIAL FIRE FIGHTING PROCEDURES
 Evacuate enclosed areas, stay upwind. Close or confined quarters require self-contained breathing apparatus, positive pressure hose masks or airline masks. Use water spray to cool containers, to flush spills from source of ignition and to disperse vapors.

UNUSUAL FIRE AND EXPLOSION HAZARDS
 Fire hazard because of low flash point and high volatility. Vapors are heavier than air and may travel to source of ignition.

01/13/88 NEW 18:00 FAX 519 681 2156

SECTION V - HEALTH HAZARD DATA**PRIMARY ROUTES OF ENTRY:** Inhalation Skin Contact Eye Contact Ingestion**EFFECT OF OVEREXPOSURE**

ACUTE: **Inhalation:** Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passage.
Skin Contact: Skin irritant. Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
Skin Absorption: Prolonged or widespread exposure may result in the absorption of harmful amounts of material.
Eye Contact: Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid. Vapors slightly uncomfortable.
Ingestion: Moderately toxic. May cause nausea, vomiting, diarrhea. May cause mental sluggishness.
CHRONIC: Symptoms of respiratory tract irritation and damage to respiratory epithelium were reported in rats exposed to 5000 ppm THF for 90 d. Elevation of SGPT suggests a disturbance in liver function. The NOEL was reported to be 200 ppm.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing diseases of the eyes, skin or respiratory system may have increased susceptibility to the toxicity of excessive exposures.

EMERGENCY AND FIRST AID PROCEDURES

Inhalation: If overcome by vapors, remove to fresh air and if breathing stopped, give artificial respiration. If breathing is difficult, give oxygen. Call physician.
Eye Contact: Flush eyes with plenty of water for 15 minutes and call a physician.
Skin Contact: Remove contaminated clothing and shoes. Wash skin with plenty of soap and water for at least 15 minutes. If irritation develops, get medical attention.
Ingestion: Give 1 or 2 glasses of water or milk. Do not induce vomiting. Call physician or poison control center immediately.

SECTION VI - REACTIVITY

STABILITY	UNSTABLE		CONDITIONS TO AVOID Keep away from heat, sparks, open flame and other sources of ignition.
	STABLE	X	

INCOMPATIBILITY (MATERIALS TO AVOID): Caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.

HAZARDOUS DECOMPOSITION PRODUCTS

When forced to burn, this product gives out carbon monoxide, carbon dioxide, hydrogen chloride and smoke.

HAZARDOUS POLYMERIZATION

MAY OCCUR		CONDITIONS TO AVOID Keep away from heat, sparks, open flame and other sources of ignition
WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Eliminate all ignition sources. Avoid breathing of vapors. Keep liquid out of eyes. Flush with large amount of water. Contain liquid with sand or earth. Absorb with sand or nonflammable absorbent material and transfer into steel drums for recovery or disposal. Prevent liquid from entering drains.

WASTE DISPOSAL METHOD

Follow local, State and Federal regulations. Consult disposal expert. Can be disposed of by incineration. Excessive quantities should not be permitted to enter drains. Empty containers should be air dried before disposing. Hazardous Waste Code: 214.

SECTION VIII - SPECIAL PROTECTION INFORMATION**RESPIRATORY PROTECTION (Specify type)**

Atmospheric levels should be maintained below established exposure limits contained in Section II. If airborne concentrations exceed those limits, a NIOSH-approved organic vapor cartridge respirator with full face-piece is recommended. The effectiveness of an air purifying respirator is limited only for a single short-term exposure. For emergency and other conditions where short term exposure guidelines may be exceeded, use an approved positive pressure self-contained breathing apparatus.

VENTILATION

Use only with adequate ventilation. Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits set in Section II. Use only explosion proof ventilation equipment.

PROTECTIVE GLOVES

PVA coated

EYE PROTECTION

Splashproof chemical goggles

OTHER PROTECTIVE EQUIPMENT AND HYGIENIC PRACTICES

Impermeable apron and a source of running water to flush or wash the eyes and skin in case of contact.

SECTION IX - SPECIAL PRECAUTIONS**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Store in the shade between 40°F - 110°F. Keep away from heat, sparks, open flame and other sources of ignition. Avoid prolonged breathing of vapors. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Train employees on all special handling procedures before they work with this product.

OTHER PRECAUTIONS

Follow all precautionary information given on container label, product bulletins and our solvent cementing literature. All handling equipment should be electrically grounded.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from thereof.