MATERIAL SAFETY DATA

URETHANE ALUMINUM PRIMER

Page:

1

800-537-8530

DATE PRINTED: 09/24/1998

TO 2-3 TOUCH
REVISION DATE: 09/24/98
HANDLE 6-8 HOLLES

PRODUCT NAME: URETHANE ALUMINUM PRIMER

PRODUCT CODE: 07-440-PP

HEALTH: 3 * , FIRE: 3 , REACTIVITY: 1 , PERSONAL PROTECTION: HMIS:

4 = EXTREME, 3 = HIGH, 2 = MODERATE, 1 = SLIGHT, 0 = INSIGNIFICANT, * = CHRONIC

========== SECTION I - MANUFACTURER IDENTIFICATION ===========

MANUFACTURER'S NAME: Columbia Paint & Coatings ADDRESS : N112 Haven, P.O. Box 4569 Spokane, WA 99202-4569

24 HOUR EMERGENCY PHONE NO: 800-424-9300

NAME OF PREPARER : Bill Heiber

INFORMATION PHONE NO : 509-535-6311

====== SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION =======

REPORTABLE COMPONENTS	EXPOSURE LIMITS (TLV, PEL)	CAS NUMBER	WEIGHT PERCENT	VAPOR PRI	
Petroleum Distillate		8052-41-3	28.88	2	68
	ACGIH: 100 ppm (525 mg/m3)	TWA			
	OSHA: 100 ppm (400 mg/m3) T	NA.			
Aluminum Metal		7429-90-5	15.07	NA	NA
	ACGIH: 10 mg/m3 TWA				
	OSHA: 5 mg/m3 TWA				
* Diphenylmethane-4,4'	-Diisocyanate (MDI)	101-68-8	10.60	0.001	104
	ACGIH: 0.005 ppm (0.051 mg/m3) TWA				
	OSHA: ceiling: 0.02 ppm (0.2 mg/m3) TWA				
* Toluene		108-88-3	4.85	22	68
	ACGIH: skin: 50 ppm TWA				
	OSHA: 200 ppm TWA; 300 ppm	ceiling; 500 ppm for 10 min	utes		

^{*} Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Emergency and Community Rightto-Know Act of 1986 and of 40 CFR 372.

This product contains materials listed as hazardous air pollutants.

======== SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS ==========

BOILING RANGE (F): 226 - 680 SPECIFIC GRAVITY (H2O=1): 1.10 % VOLATILE BY WT: 33.95%

POUNDS PER GALLON: 9.16 lb/gl 44.93%

% VOLATILE BY VOL:

VAPOR DENSITY: Heavier than air.

This product contains hazardous components which may become airborne and result in exposure when removed by abrasive blasting, sanding, or grinding. Ventilate and avoid breathing dust.

URETHANE ALUMINUM PRIMER

DATE PRINTED: 09/24/1998

Page:

DAIL INIMIED: 05/21/1550

EVAPORATION RATE: Faster than n-butyl acetate.

V.O.C.(lb/gal): 3.11 lb/gl

V.O.C.(g/1): 373 g/1

SOLUBILITY IN WATER: NA APPEARANCE: Gray liquid.

ODOR: Solvent odor.

======== SECTION IV - FIRE AND EXPLOSION HAZARD DATA =========

FLAMMABILITY CLASS: DOT flammable liquid (20 F< flash point <100 F).

OSHA Class IC (73 F<= flash point <100 F).

FLASH POINT (F): 98.0

METHOD USED : TCC

FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 1.27

UPPER: 14.4

EXTINGUISHING MEDIA: Foam. CO2. Dry chemical.

SPECIAL FIREFIGHTING PROCEDURES

Evacuate hazard area of unprotected personnel.

Water spray may be ineffective. However, water may be used to cool closed containers to prevent pressure buildup. Pull protective equipment is recommended including self contained breathing apparatus, to protect firefighters from hazardous combustion products. No skin should be exposed.

Do NOT use a water stream. Do NOT use halogenated extinguishing agents, like halon or carbon tetrachloride. Care should be used when applying a class B extinguishing agent as some agents can accelerate a fire when most of the solvent has been consumed and the metal has started to burn. Isolate the fire by ringing it with a dry, inert granular material, or a class D extinguishing agent, then allow it to burn out. Allow the material to become cold before disposal since metal may continue to burn under a crust without flame. Full protective equipment is recommended, including self-contained breathing apparatus, to protect firefighters from hazardous combustion products.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Isolate from heat, sparks, electrical equipment, and open flame. Vapors will form explosive concentrations with air. Vapors travel long distances and may flashback. Use mechanical ventilation when necessary to keep percent vapor below the "Lower Explosion Level" (LEL). In closed containers, pressure buildup may occur due to heat exposure. Water contamination would increase this tendency due to carbon dioxide evolution. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

Vapors are heavier than air and will accumulate.

STABILITY: Stable

CONDITIONS TO AVOID

High temperatures or direct heating.

INCOMPATIBILITY (MATERIALS TO AVOID)

Water or water vapor.

Alcohols.

Metal compounds.

Surface active materials.

Phosphorus containing materials.

Chlorinated materials.

Oxygen and strong oxidants. Strong acids. Strong bases. Amines.

Will dissolve or soften some plastics and rubber.

URETHANE ALUMINUM PRIMER

DATE PRINTED: 09/24/1998

3

Page:

DATE PRINTED: 03/24/1990

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

Fumes produced when heated to decomposition, such as in welding, may include one or more of the following: Carbon dioxide. Carbon monoxide. Oxides of nitrogen.

Acrolein.

Isocyanate monomer. Traces of hydrogen cyanide.

Aluminum oxide. Aluminum nitride.

HAZARDOUS POLYMERIZATION: Will not occur.

PRIMARY ROUTES OF EXPOSURE: Dermal: X Inhalation: X Ingestion:

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Overexposure via inhalation may cause central nervous system depression with symptoms ranging from headaches, dizziness, loss of coordination, to unconsciousness.

Deliberately breathing concentrated solvent vapor (glue sniffing) may result in permanent brain and nervous system damage or death. Isocyanate overexposure may irritate mucous membranes of the respiratory tract causing runny nose, dryness of throat, coughing, tightness in chest, labored breathing, or burning sensation. Extensive exposures to isocyanate levels above TLV could lead to bronchitis, bronchial spasm, and pulmonary edema.

May cause respiratory irritation.

Isocayanates can cause lung sensitization. An allergic respiratory reaction including chest tightness, respiratory distress, or asthma attack may occur in sensitized individuals when exposed to the isocyanate below the TLV. Isocyanates can cause lung injury. Repeated overexposure to solvent vapors may result in damage to one or more of the following: central nervous system, blood, liver, kidney, and/or hearing.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Prolonged or repeated skin contact may dry and defat the skin leading to irritation and/or dermatitis.

Eye contact may cause eye severe irritation, redness, tearing, blurred vision, and/or possible corneal injury.

Prolonged or repeated contact with the skin can produce skin sensitization in some individuals resulting in allergic dermatitis which may include itching, rash, hives, and swelling of extremities.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

No acute effects known at this time.

No chronic effects known at this time.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Harmful or fatal if swallowed.

Ingestion may result in gastrointestinal irritation, nausea, vomiting, and/or diarrhea.

No chronic effects known at this time.

OTHER HEALTH HAZARDS (ACUTE AND CHRONIC)

Contains sensitizing material which may cause allergic and/or respiratory reaction.

No other chronic effects known at this time.

URETHANE ALUMINUM PRIMER

DATE PRINTED: 09/24/1998

CARCINOGENICITY: CONTAINS CARCINOGENS: None known.

OSHA REGULATED: Yes

Page: 4

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Pre-existing disorders, chronic respiratory diseases.

Asthmatic type conditions, chronic bronchitis, other chronic respiratory diseases, diagnosed isocyanate sensitivity, recurrent skin eczema, and/or sensitization.

EMERGENCY AND FIRST AID PROCEDURES

If overcome by vapor, remove from exposure immediately; call a physician. If breathing is irregular or stopped, start resuscitation; administer oxygen.

If ingested, do NOT induce vomiting; call a physician.

If splashed into the eyes, flush eyes with clear water for 15 minutes or until irritation subsides; consult a physician as required.

In case of skin contact, remove any contaminated clothing and wash skin with soap and warm water.

Treat any asthmatic type reactions symptomatically.

========== SECTION VII - SPILL OR LEAK PROCEDURES ===========

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition (flame, hot surfaces, and electrical, static or frictional sparks), ventilate area, and full protective equipment. Contain and cover spill with inert absorbent material; pour liquid decontaminant over the spillage and allow to react at least 10 minutes; collect material with non-sparking tools into open containers and add further amounts of decontamination solution; cover loosely. Wash down area with decontaminant and flush with water. Refer to other hazard cautions contained on this sheet before attempting clean-up.

** Decontaminant solutions: ammonium hydroxide (0-10%), detergent (2-5%), and balance of water; OR solution of Union Carbide's Tergitol TMN-10 (20%) and water (80%). **

WASTE DISPOSAL METHOD

Do not incinerate closed containers.

Do not close containers of decontaminated material until the evolution of carbon dioxide is complete. Incinerate open containers in an approved facility or use secure landfill in accordance with local, state, and federal regulations.

Dispose in accordance with local, state, and federal regulations.

====== SECTION VIII - SAFE HANDLING AND USE INFORMATION =========

RESPIRATORY PROTECTION

In confined areas, use NIOSH/MSHA approved positive-pressure, air supplied respirator or use hoods.

Use NIOSH/MSHA respirator that is recommended or approved for use in isocyanate containing environments (air purifying or fresh air supplied), consider type of application and environmental concentrations. In spray application you must protect against exposure to both vapor and spray mist. Observe OSHA regulations for respirator use (29 CFR 1910.134). When the airborne isocyanate monomer concentrations are known to be below .2 ppm and if the polyisocyanate (polymeric, oligomer) concentrations are known to be below 10 mg/m3, a properly fitted air-purifying (combination organic vapor and particulate) respirator, proven by test to be effective in isocyanate-containing spray paint environments, will provide sufficient protection. When the above guidelines are exceeded, or if spraying is performed in a confined space or area with limited ventilation, the use of a positive pressure air-supplied respirator is mandatory.

*NOTE: Even during non-spray operations such as mixing, brush or roller application, it is possible to be exposed to solvent or isocyanate vapors. Unless concentrations are known to be below TLV's, the above guidelines should still be followed.

Use ventilation to keep levels below exposure guidelines (see Section II.) User should test and monitor exposure levels to insure

Use Ventilation to Keep levels below exposure guidelines (see Section II.) User should test and monitor exposure levels to insure all personnel exposure is below guidelines. If not sure or if not able to monitor levels, use a NIOSH/MSHA approved air purifying respirator.

VENTILATION

URETHANE ALUMINUM PRIMER

Page:

DATE PRINTED: 09/24/1998

Pockets of heavy and/or flammable vapor must not be permitted to form.

Ventilation and respiratory protection must be adequate to prevent the TLV's of hazardous ingredients from being exceeded. All application areas should be ventilated in accordance with OSHA regulations.

PROTECTIVE GLOVES

Chemical resistant nitrile, neoprene or rubber gloves required.

EYE PROTECTION

Use safety eyewear with splash guards or side shields.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Use protective apron and clothing.

Cover as much of exposed skin area as possible with appropriate clothing.

An eye wash station should be available.

WORK/HYGIENIC PRACTICES

Wash hands before eating or using washroom. Smoke in smoking areas only. Wash clothes before reuse.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Do not store or use near heat, sparks, or flame. No smoking or open lights. Use with adequate ventilation.

Store tightly closed container and protect from moisture and foreign materials. If contaminants enter container, pressure can built up due to reaction producing carbon dioxide which can cause sealed container to pressurize and burst. Do NOT reseal if contamination is suspected.

OTHER PRECAUTIONS

Store in sealed containers away from space heating equipment.

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Avoid prolonged or repeated breathing of vapors.

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