

MATERIAL SAFETY DATA SHEET

PPT-RL-(01 through 10) - RELEASE COATING

SECTION I : PRODUCT INFORMATION

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MANUFACTURED FOR:

IMAGE GROUP

2284 SPEERS ROAD

OAKVILLE, ONTARIO L6L 2X8

905) 825-5600

PRODUCT NAME:

PPT-RL-(01 through 10) RELEASE COATING

HAZARD RATING:

HEALTH 2

REACTIVITY 1

TRANSPORTATION INFORMATION:

RESIN SOLUTION - FLAMMABLE

UN1866 CLASS 3 PACKING GROUP II

MATERIAL USE:

INDUSTRIAL COATING

FLAMMABILITY 3

PERSONAL PROTECTION B

WHMIS CLASSIFICATION:

B2-FLAMMABLE LIQUID

D2B-TOXIC (EYE AND SKIN IRRITANT)

SECTION II: HAZARDOUS INGREDIENTS

| HAZARDOUS INGREDIENT | % | CAS # | TWAEV (ppm) | LD50 ORAL | (mg/kg) SKIN | LC50 INHALATION |
|-------------------------------|-------|------------|-------------|-----------|--------------|-----------------|
| POLYVINYL OCTADECYL CARBAMATE | 1-10 | 36671-85.9 | N/A | N/A | N/A | N/A |
| TOLUENE | 90-99 | 108-88-3 | 100 | 650* | 12000* | 400* |

*NOTE: LD50, LC50 vary markedly between species. Lowest value shown above.

SECTION III : PHYSICAL DATA

ODOUR & APPEARANCE

CLEAR, COLOURLESS, LIQUID WITH PLEASANT PETROLEUM ODOUR

ODOUR THRESHOLD

RANGE - 0.2 - 37ppm

VAPOUR PRESSURE

22mmHg / 7.1 kPa (20°C)

VAPOUR DENSITY (AIR=1)

3.1

BOILING POINT

110.6°C

FREEZING POINT

-95°C

SPECIFIC GRAVITY

0.868 (20°C)

WATER SOLUBILITY

0.6 grams per litre (20°C)

SECTION IV : FLAMMABILITY & REACTIVITY

FLASH POINT

4.4°C - 6°C

AUTOIGNITION TEMPERATURE

480°C - 550°C

FLAMMABLE LIMITS

1.2% - 7.1%

HAZARDOUS COMBUSTION PRODUCTS

CARBON MONOXIDE, NITROGEN OXIDES, SMOKE, PART OXIDIZED HYDROCARBON FRAGMENTS

FIREFIGHTING PRECAUTIONS

FOAM, DRY CHEMICAL, WATER FOG, WATER SPRAY ONLY TO COOL, PRODUCT FLOATS ON WATER AND WILL NOT COOL BELOW FLASHPOINT! - FIREFIGHTERS MUST WEAR "SCBA" WILL ACCUMULATE A STATIC CHARGE ON AGITATION OR WHILE DECANTING NOT SENSITIVE

SENSITIVITY TO STATIC DISCHARGE

SENSITIVITY TO MECHANICAL IMPACT

CHEMICAL STABILITY

STABLE, WILL NOT POLYMERIZE

REACTIVE WITH

STRONG OXIDISING AGENTS, CONC. H₂SO₄ + HNO₃, N₂O₄, AgClO₄, BrF₃, UF₆, HALOGENS, MOLTEN SULPHUR

DANGEROUS DECOMPOSITION PRODUCTS

NONE APART FROM "HAZARDOUS COMBUSTION PRODUCTS"

SECTION V : TOXICOLOGY

EFFECTS OF ACUTE EXPOSURE

SKIN CONTACT

AGGRESSIVELY DRYING, IRRITATING

SKIN ABSORPTION

SLIGHT, TOXIC EFFECTS NOT ANTICIPATED BY THIS ROUTE

EYE CONTACT

SEVERELY IRRITATING, MAY DAMAGE EYES PERMANENTLY

INHALATION

50 - 100 ppm - IRRITATING; 50 ppm - HEADACHE & DROWSINESS, 100 ppm - FATIGUE & DIZZINESS; OVER 200 ppm - INTOXICATION, DIZZINESS; OVER 500 ppm - INCO-ORDINATION & CONFUSION

INGESTION

HEADACHE, DIZZINESS, DROWSINESS, INTOXICATION

EFFECTS OF CHRONIC EXPOSURE

GENERAL

PROLONGED EXPOSURE MAY CAUSE SKIN CRACKING AND DERMATITIS, REPEATED EXPOSURE OF 200 ppm MAY DAMAGE LIVER AND KIDNEYS

SENSITISING

NO

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SECTION V : TOXICOLOGY (continued)

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| | |
|----------------------------|---|
| CARCINOGENIC | NO, TUMORIGEN IN RODENTS AT 200 ppm - 400 ppm; NO EVIDENCE OF EFFECT KNOWN IN HUMANS |
| REPRODUCTIVE EFFECT | REPRODUCTIVE TOXIN IN RODENTS AT 200 ppm - 400 pm, AT ORAL DOSES ABOVE THE LD ₅₀ , NO EVIDENCE OF EFFECT IN HUMANS |
| SYNERGISTIC WITH | PRE-EXISTING DERMATITIS |
| ESTIMATED LD ₅₀ | ORAL 650 mg/kg TO 4000 mg/kg DEPENDING ON SPECIES; 12000 mg/kg (SKIN, RABBIT) |
| ESTIMATED LC ₅₀ | INHALATION 400 ppm - 8800 ppm DEPENDING ON SPECIES |

NOTE: LD₅₀ & LC₅₀ vary substantially between species. The values calculated above are suspicious in view of the existence of far higher values from other studies and of the known toxicity of Xylene, a chemically similar substance. Toluene is probably far less toxic in humans than these numbers suggest.

SECTION VI : PROTECTIVE EQUIPMENT

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| HANDS | "VITON" GLOVE PREFERRED - ALSO "BARRICADE", "TRELLCHEM" AND "RESPONDER" - check with supplier |
| EYES | SAFETY GLASSES WITH SIDE SHIELDS OR CHEMICAL GOGGLES |
| RESPIRATOR | NOT REQUIRED IF VENTILATION IS ADEQUATE (SEE TWAEV, (1) ABOVE), OR USE ORGANIC VAPOUR CARTRIDGE |
| CLOTHING | IMPERVIOUS (HANDS, ABOVE) APRON, BOOTS, LONG SLEEVES, IF SPLASHING IS ANTICIPATED |

SECTION VII : ENVIRONMENT

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|-----------------|---|
| LEAK PRECAUTION | DYKE TO CONTROL SPILLAGE AND PREVENT ENVIRONMENTAL CONTAMINATION |
| HANDLING SPILL | << FIRE POTENTIAL. Blanket spill with foam as a precaution against accidental ignition >> VENTILATE CONTAMINATED AREA, RECOVER FREE LIQUID WITH EXPLOSION-PROOF PUMPS, ABSORB RESIDUE ON AN INERT SORBENT, PICK UP WITH NON-SPARKING PLASTIC OR ALUMINIUM SHOVEL AND STORE IN CLOSED CONTAINERS FOR DISPOSAL. DON'T OPERATE (TURN ON OR OFF) ANY NON-EXPLOSION-PROOF ELECTRICAL APPLIANCES NEAR SPILL |
| WASTE DISPOSAL | DO NOT FLUSH TO SEWER, MAY BE INCINERATED IN APPROVED FACILITY |

SECTION VIII : STORAGE & HANDLING

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION IX : FIRST AID

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| SKIN | WASH WITH SOAP AND PLENTY OF WATER. REMOVE CONTAMINATED CLOTHING AND DO NOT REUSE UNTIL THOROUGHLY CLEANED OR LAUNDERED. |
| EYES | WASH EYES WITH PLENTY OF WATER, HOLDING EYELIDS OPEN. SEEK MEDICAL ASSISTANCE PROMPTLY IF THERE IS ANY IRRITATION |
| INHALATION | REMOVE FROM CONTAMINATED AREA PROMPTLY. CAUTION: RESCUER MUST NOT ENDANGER HIMSELF! IF BREATHING STOPS, ADMINISTER ARTIFICIAL RESPIRATION AND SEEK MEDICAL AID PROMPTLY. |
| INGESTION | GIVE MILK TO DILUTE PRODUCT AND TO SLOW ABSORPTION. DO NOT INDUCE VOMITING (SEE NOTE BELOW). KEEP VICTIM QUIET. IF VOMITING OCCURS, KEEP VICTIMS HEAD BELOW THE HIPS TO PREVENT INHALATION OF VOMITED MATERIAL. SEEK MEDICAL HELP PROMPTLY. |

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this product. The stomach should be emptied under medical supervision, after the installation of an airway to protect the lungs.

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SECTION X : ADDITIONAL INFORMATION

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POISON CONTROL CENTRE 800-268-9017

CANUTEC 24 HOUR EMERGENCY SERVICE 613-996-6666

PREPARED BY TONY KURZ IMAGE GROUP JULY 2013 905-825-5600

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