

*** MATERIAL SAFETY DATA SHEET ***

date of prep : 26/10/16

1-60-8000 (page 1)

SECTION I

manufacturer : Consolidated Coatings Corporation

address : #310 7651 Vantage Way
Delta, British Columbia
V4G 1A6

telephone# : 604-946-7626

emergency# :

- H M I S -

HEALTH	: 1
FLAMMABILITY	: 2
REACTIVITY	: 0
PERSONAL PROTECT.: G	

whmis class : B,D2B

(HAZARD RATING : 0=least, 1=slight, 2=moderate, 3=high, 4=extreme, *=chronic)

mfg. code id : 1-60-8000 MSDS revision# : 22062

(G = safety glasses, gloves, & vapor respirator)

trade name : EPOXY FLOOR ENAMEL REACTOR (PT.B) [1:1]

SECTION II-A

HAZARDOUS COMPONENTS

no.	component	CAS#	% by wt.	SARA	vapor pressure (mm Hg @ 20 C)	LEL (@ 25 C)
1	ALIPHATIC POLYAMIDE RESIN	68410-23-1	20 - 25	NO	N/A	N/A
2	XYLENE	1330-20-7	30 - 35	YES	6.60	1.10
3	2-BUTOXYETHANOL	111-76-2	15 - 20	YES	0.60	1.10 @ 20 C
4	LIGHT AROMATIC NAPHTHA	64742-95-6	15 - 20	NO	<10.00 @ 25 C	0.90
5	BENZENEMETHANOL	100-51-6	1 - 5	NO	1.00 @ 58 C	N/A
6	ISOPHORONEDIAMINE	2855-13-2	1 - 5	NO	N/A	N/A
7	FORMALDEHYDE POLYMER	25265-17-2	1 - 5	NO	N/A	N/A

>> None of the components of this product are recognized as carcinogenic.

>> Under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372, chemicals listed on the Section 313 List (40 CFR Part 373.65) are identified under the heading 'SARA 313'.

(N/A = not applicable)

SECTION II-B

OCCUPATIONAL EXPOSURE LIMITS

no.	(OSHA) PEL/TWA	PEL/CEILING	PEL/STEL	skin
1	N/E	N/E	N/E	N/E
2	100 ppm / 434 mg/m3	N/E	N/E	N/E
3	25 ppm	N/E	N/E	Y
4	N/E	N/E	N/E	N/E
5	N/E	N/E	N/E	N/E
6	N/E	N/E	N/E	N/E
7	N/E	N/E	N/E	N/E

no.	(ACGIH) TLV/TWA	TLV/CEILING	TLV/STEL	skin
1	N/E	N/E	N/E	N/E
2	100 ppm / 434 mg/m3	N/E	N/E	N/E
3	25 ppm	N/E	75 ppm	Y
4	N/E	N/E	N/E	N/E
5	N/E	N/E	N/E	N/E
6	N/E	N/E	N/E	N/E
7	N/E	N/E	N/E	N/E

>> The dried film of this product may become a dust nuisance when removed by sanding or grinding. OSHA recommends a PEL/TWA of 15 mg/m3 for total dust and 5 mg/m3 for the respirable fraction. ACGIH recommends a TLV/TWA of 10 mg/m3 for total dust.

>> (SKIN) absorption may contribute to the overall exposure to this material. Take appropriate measures to prevent skin contact.
(N/E = not established)

SECTION III

PHYSICAL DATA

boiling point	: not established	% volatile by volume	: 74.90 (Theoretical)
evaporation rate	: < 1 (ether = 1)	% volatile by weight	: 72.70 (Theoretical)
vapor density	: > 1 (air = 1)	kilograms per liter	: 0.908 (Theoretical)

SECTION IV

HEALTH INFORMATION

EYE CONTACT

BASED ON THE PRESENCE OF COMPONENTS 1, 6 AND 7 PRODUCT IS PRESUMED TO BE SEVERELY IRRITATING TO THE EYES. EXPOSURE MAY CAUSE EXTENSIVE CORNEAL INJURY. BASED ON THE PRESENCE OF COMPONENTS 2 AND 4 PRODUCT VAPORS AND/OR MISTS MAY ALSO BE IRRITATING TO THE EYES. BASED ON THE PRESENCE OF COMPONENT 7 EXPOSURE TO VAPOR MAY CAUSE MINOR TRANSIENT EDEMA OF THE CORNEAL EPITHELIUM, KNOWN AS "GLAUCOPSIA" OR "BLUE HAZE". THIS CONDITION PRODUCES A BLURRING OF VISION AGAINST A GENERAL BLuish HAZE AND THE APPEARANCE OF HALOS AROUND BRIGHT OBJECTS. THE EFFECT DISAPPEARS WITHIN A FEW HOURS AFTER AN EXPOSURE.

SKIN CONTACT

BASED ON THE PRESENCE OF COMPONENT 7 PRODUCT IS PRESUMED TO BE CORROSIVE TO THE SKIN AND EXPOSURE MAY CAUSE CHEMICAL BURNS. BASED ON THE PRESENCE OF COMPONENTS 3, 5 AND 6 ABSORPTION THROUGH THE SKIN MAY RESULT IN SYMPTOMS OF EXPOSURE AS THOSE DESCRIBED FOR INHALATION AND INGESTION. BASED ON THE PRESENCE OF COMPONENTS 2, 3 AND 4 PROLONGED OR REPEATED CONTACT MAY RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN DERMATITIS. BASED ON THE PRESENCE OF COMPONENT 4 CONTACT MAY RESULT IN A PRONOUNCED PHOTOSENSITIZATION EFFECT. BASED ON THE PRESENCE OF COMPONENTS 1 AND 6 CONTACT WITH THE SKIN MAY RESULT IN SKIN SENSITIZATION TO AMINES, POLYAMINES, POLYAMIDES AND RELATED COMPOUNDS. INDIVIDUALS WHO HAVE DEVELOPED A SKIN SENSITIZATION CAN DEVELOP THESE SYMPTOMS AS A RESULT OF CONTACT WITH VERY SMALL AMOUNTS OF LIQUID MATERIAL OR AS A RESULT OF EXPOSURE TO VAPOR. THIS SKIN SENSITIZATION MAY BE TEMPORARY OR PERMANENT. ONCE AN INDIVIDUAL IS DIAGNOSED AS BEING SENSITIZED, NO FURTHER EXPOSURE CAN BE PERMITTED

INHALATION

BASED ON THE PRESENCE OF COMPONENT 7 PRODUCT VAPORS AND/OR MISTS ARE CORROSIVE TO THE NOSE, THROAT, RESPIRATORY TRACT, AND OTHER MUCOUS MEMBRANES. OVEREXPOSURE MAY RESULT IN CHEMICAL PNEUMONITIS OR PULMONARY EDEMA WHICH ARE POTENTIALLY FATAL. BASED ON THE PRESENCE OF COMPONENTS 2, 3, 4 AND 5 EXPOSURE TO HIGH CONCENTRATIONS OF VAPOR MAY PRODUCE CENTRAL NERVOUS SYSTEM DEPRESSION. REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL. BASED ON THE PRESENCE OF COMPONENTS 1 AND 6 AS A RESULT OF REPEATED OVEREXPOSURES OR EXPOSURE TO A SINGLE LARGE DOSE, CERTAIN INDIVIDUALS MAY DEVELOP LUNG SENSITIZATION (CHEMICAL ASTHMA) TO AMINES, POLYAMINES, POLYAMIDES AND RELATED COMPOUNDS WHICH WILL CAUSE THEM TO REACT TO A LATER EXPOSURE AT LEVELS WELL BELOW THE TLV. ONCE AN INDIVIDUAL IS DIAGNOSED AS BEING SENSITIZED, NO FURTHER EXPOSURE CAN BE PERMITTED. THIS LUNG SENSITIZATION MAY BE EITHER TEMPORARY OR PERMANENT.

INGESTION

BASED ON THE PRESENCE OF COMPONENT 6 PRODUCT IS CORROSIVE AND MAY CAUSE CHEMICAL BURNS TO THE GASTROINTESTINAL TRACT. BASED ON THE PRESENCE OF COMPONENT 3 INGESTION MAY CAUSE RED BLOOD CELL HEMOLYSIS LEADING TO KIDNEY AND LIVER DAMAGE. BASED ON THE PRESENCE OF COMPONENTS 2 AND 4 SMALL AMOUNTS OF THE LIQUID ASPIRATED INTO THE LUNGS DURING INGESTION OR FROM VOMITING MAY RESULT IN SEVERE LUNG DAMAGE. BASED ON THE PRESENCE OF COMPONENTS 2, 3, 4 AND 5 INGESTION MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION.

SIGNS AND SYMPTOMS

SYMPTOMS OF EYE IRRITATION INCLUDE PAIN, TEARING, REDDENING AND SWELLING. SYMPTOMS OF SKIN IRRITATION INCLUDE REDDENING, SWELLING, RASH AND REDNESS. SYMPTOMS OF RESPIRATORY IRRITATION INCLUDE RUNNY NOSE, SORE THROAT, COUGHING, CHEST DISCOMFORT, SHORTNESS OF BREATH AND REDUCED LUNG FUNCTION. SYMPTOMS OF GASTROINTESTINAL IRRITATION INCLUDE SORE THROAT, ABDOMINAL PAIN, NAUSEA, VOMITING AND DIARRHEA. BASED ON THE PRESENCE OF COMPONENTS 2, 3, 4 AND 5 CENTRAL NERVOUS SYSTEM DEPRESSION MAY BE EVIDENCED BY HEADACHE, DIZZINESS, NAUSEA AND SYMPTOMS OF INTOXICATION; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR. SYMPTOMS OF CHRONIC OVEREXPOSURE INCLUDE LOSS OF MEMORY, LOSS OF INTELLECTUAL ABILITY AND LOSS OF COORDINATION. BASED ON THE PRESENCE OF COMPONENT 1 SKIN SENSITIZATION RESULTS IN ALLERGIC DERMATITIS WHICH MAY INCLUDE RASH, ITCHING, HIVES AND SWELLING OF EXTRMEMITIES. BASED ON THE PRESENCE OF COMPONENT 1 LUNG SENSITIZATION RESULTS IN ASTHMA-LIKE SYMPTOMS: CHEST TIGHTNESS, SHORTNESS OF BREATH, WHEEZING AND COUGHING. THESE SYMPTOMS MAY BE IMMEDIATE OR DELAYED UP TO SEVERAL HOURS.

AGGRAVATED MEDICAL CONDITIONS

PREEXISTING SKIN, EYE AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. IMPAIRED CENTRAL NERVOUS SYSTEM FUNCTIONS FROM PREEXISTING DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. PERSONS WITH ASTHMATIC-TYPE CONDITIONS, CHRONIC BRONCHITIS, OTHER CHRONIC RESPIRATORY DISEASES, RECURRENT SKIN ECZEMA, SENSITIZATION OR ALERGIES SHOULD BE EXCLUDED FROM WORKING WITH AMINES, POLYAMINES, POLYAMIDES AND RELATED COMPOUNDS.

OTHER HEALTH EFFECTS

BASED ON THE PRESENCE OF COMPONENT 3 CHRONIC OVEREXPOSURE MAY CAUSE INJURY TO THE KIDNEYS AND LIVER. BASED ON THE PRESENCE OF COMPONENT 3 CHRONIC OVEREXPOSURE MAY CAUSE DAMAGE TO THE RED BLOOD CELLS. BASED ON THE PRESENCE OF COMPONENT 3 CHRONIC OVEREXPOSURE MAY CAUSE DAMAGE TO THE LUNGS.

SECTION V

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT

IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN. SEEK PROMPT MEDICAL ATTENTION.

SKIN CONTACT

REMOVE CONTAMINATED CLOTHING AND SHOES. WIPE EXCESS FROM SKIN AND FLUSH WITH WATER USING SOAP IF AVAILABLE. SEEK MEDICAL ATTENTION IF IRRITATION OCCURS. DO NOT REUSE CLOTHING UNTIL THOROUGHLY DECONTAMINATED. CONTAMINATED LEATHER ARTICLES CANNOT BE DECONTAMINATED AND SHOULD BE DISPOSED.

INHALATION

REMOVE VICTIM TO FRESH AIR AND TREAT SYMPTOMATICALLY. PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF THE VICTIM IS NOT BREATHING. SEEK PROMPT MEDICAL ATTENTION.

INGESTION

DO NOT INDUCE VOMITING. VOMITING WILL CAUSE FURTHER DAMAGE TO THE THROAT. DILUTE BY GIVING WATER OR MILK TO DRINK IF THE VICTIM IS CONSCIOUS. CONSULT A PHYSICIAN, HOSPITAL OR POISON CONTROL CENTER AND/OR TRANSPORT TO AN EMERGENCY FACILITY IMMEDIATELY.

>> COMPONENTS 2 AND 4 DO NOT INDUCE VOMITING.

SECTION VI

FIRE AND EXPLOSION HAZARDS

flammability classification - OSHA : FLAMMABLE LIQUID - CLASS IB

- DOT : FLAMMABLE LIQUID

flash point : 28 DEGREES C

EXTINGUISHING MEDIA

USE WATER FOG, FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

WARNING. FLAMMABLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT HELMET, FACE SHIELD, BUNKER COAT, GLOVES, RUBBER BOOTS, AND A POSITIVE PRESSURE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS

CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

SECTION VII

REACTIVITY

STABILITY : STABLE

HAZARDOUS POLYMERIZATION : WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID

BASED ON THE PRESENCE OF COMPONENTS 1, 2, 3, 4, 5, 6 AND 7 AVOID OXIDIZING MATERIALS. BASED ON THE PRESENCE OF COMPONENTS 1, 5, 6 AND 7 AVOID STRONG ACIDS. BASED ON THE PRESENCE OF COMPONENT 3 AVOID STRONG ALKALIES. BASED ON THE PRESENCE OF COMPONENT 1 AVOID NATURAL RUBBER. BASED ON THE PRESENCE OF COMPONENT 1 AVOID EPOXY RESINS UNDER UNCONTROLLED CONDITIONS.

HAZARDOUS DECOMPOSITION PRODUCTS

OXIDES AND COMPOUNDS OF NITROGEN, CARBON DIOXIDE, CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION VIII

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS - AT LEAST 10 AIR CHANGES PER HOUR ARE RECOMMENDED FOR GOOD GENERAL ROOM VENTILATION. IF EXPOSURE EXCEEDS THE PEL/TLV, USE THE APPROPRIATE NIOSH-APPROVED RESPIRATOR.

PROTECTIVE CLOTHING

WEAR SAFETY GLASSES, GOGGLES, OR A SPLASH SHIELD TO PREVENT EYE CONTACT. CONTACT LENSES SHOULD NOT BE WORN. WEAR NEOPRENE OR OTHER CHEMICAL RESISTANT GLOVES TO PREVENT SKIN CONTACT.

ADDITIONAL PROTECTIVE MEASURES

EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR USE IN AN EMERGENCY.

SECTION IX

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

LARGE SPILLS >> EVACUATE THE HAZARD AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTIONS AS ABOVE. SMALL SPILLS >> TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

WASTE DISPOSAL

OBSERVE ALL FEDERAL, PROVINCIAL, AND LOCAL REGULATIONS REGARDING PROPER DISPOSAL OF WASTE MATERIAL.

SECTION X

ADDITIONAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS, AND FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER POSSIBLE SOURCES OF IGNITION PRIOR TO USE AND UNTIL VAPORS ARE GONE. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM HANDLING SITE. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION. CONTAINERS, EVEN IF EMPTY, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, OR WELD NEAR CONTAINERS.

CONTAINERS CAN CONTAIN HAZARDOUS PRODUCT RESIDUES EVEN WHEN EMPTY. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES.

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