



**MATERIAL SAFETY DATA SHEET**

PERMASTIC POLYURETHANE WTb PART A

PRODUCT NAME: PERMASTIC POLYURETHANE WTb PART A  
PRODUCT CODE: A4-1854W

HMIS CODES: H F R P  
2 3 0 H

**SECTION I - MANUFACTURERS IDENTIFICATION**

MANUFACTURER'S NAME: INDURON PROTECTIVE COATINGS, LLC  
ADDRESS: 3333 RICHARD ARRINGTON Jr BLVD, N.  
BIRMINGHAM, ALABAMA 35234

EMERGENCY PHONE: 1-800-424-9300 INFORMATION PHONE: (205) 324-9584  
DATE PRINTED: 5/6/2015

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

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP		WEIGHT PERCENT
POLYESTER RESIN NONE ESTABLISHED		N/A	n/a	15 - 20%
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE NONE ESTABLISHED	108-65-6	3.7	20 C	10 - 15%
! CALCIUM CARBONATE TLV=10 MG/M3 (NUISANCE DUST)	471-34-1	N/A		5 - 10%
XYLENE (MIXED ISOMERS) PEL/TWA=100PPM, TLV/TWA=100PPM, TLV/STEL=150PPM	1330-20-7	5.1	68 F	< 5%
1-CHLORO-4 (TRIFLUOROMETHYL) BENZENE NONE ESTABLISHED	98-56-6	5.3	20 C	< 5%
BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDINYL) SEBACATE	41556-26-7	NEG.		< 5%
2 MODIFICATIONS OF POLY(OXY-1,2-ETHANEDIYL) NONE ESTABLISHED	104810-47-1	<.000001	25 C	< 5%
XYLENE (MIXED ISOMERS) PEL/TWA=100PPM, TLV/TWA=100PPM, TLV/STEL=150PPM 75% DIMETHYLBENZENE CAS 1330-20-7 25% ETHYLBENZENE CAS 100-41-4		5.1	68 F	.34

\* INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF 40 CFR 372.

! NOTE: PIGMENTS DO NOT NORMALLY POSE A DUST HAZARD IN COATINGS.

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**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

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**BOILING RANGE:** 279 F - 293 F                      **DENSITY:** 13.48085 lb/gl

**VAPOR DENSITY:** HEAVIER THAN AIR.

**EVAPORATION RATE:** SLOWER THAN DIETHYL ETHER.

**COATING VOC (Water Excluded):** 2.96 lb/gl, 354 g/l

**SOLUBILITY IN WATER:** VERY SLIGHTLY SOLUBLE.

**APPEARANCE AND ODOR:**  
Opaque, Viscous liquid. Aromatic Hydrocarbon and Ketone solvent odors.

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

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**FLASH POINT:** 80 F                                      **METHOD USED:** CC

**FLAMMABLE LIMITS IN AIR BY VOLUME-LOWER:** 0.9                      **UPPER:** 10.5

**EXTINGUISHING MEDIA:**  
CARBON DIOXIDE, FOAM, DRY CHEMICAL, WATER SPRAY.

**SPECIAL FIREFIGHTING PROCEDURES:**  
USE SELF CONTAINED BREATHING APPARATUS. WATER SHOULD BE USED AS A FOG ONLY, TO KEEP CONTAINERS COOL IN ORDER TO MINIMIZE PRESSURE BUILDUP AND EXPLOSION.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**  
THIS MATERIAL IS FLAMMABLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME AND OTHER SOURCES OF IGNITION (E.G. STATIC ELECTRICITY, PILOT LIGHTS, MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY TRAVEL CONSIDERABLE DISTANCES TO A SOURCE OF IGNITION WHERE THEY MAY IGNITE, FLASHBACK OR EXPLODE. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS, WHERE THEY MAY REACH IGNITABLE CONCENTRATIONS THOUGH THE TEMPERATURE MAY REMAIN BELOW THE FLASH POINT. IF CONTAINER IS NOT PROPERLY COOLED, IT MAY EXPLODE IN THE HEAT OF A FIRE.

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**SECTION V - REACTIVITY DATA**

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**STABILITY:** STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.

**CONDITIONS TO AVOID:**  
AVOID HEAT, SPARKS, FLAME AND OTHER POSSIBLE IGNITION SOURCES.

**INCOMPATIBILITY (MATERIALS TO AVOID):**  
AVOID CONTACT WITH STRONG OXIDIZING AGENTS. MIXING WITH STRONG LEWIS OR MINERAL ACIDS AND STRONG MINERAL AND ORGANIC BASES, ESPECIALLY PRIMARY AND SECONDARY ALIPHATIC AMINES, CAN CAUSE GENERATION OF CONSIDERABLE HEAT.

**HAZARDOUS DECOMPOSITION BYPRODUCTS:**  
CARBON MONOXIDE, ALDEHYDES AND ACIDS AND OTHER ORGANIC COMPOUNDS MAY BE FORMED

DURING COMBUSTION.

**HAZARDOUS POLYMERIZATION:**

WILL NOT OCCUR.

**SECTION VI - HEALTH HAZARD DATA**

**SKIN CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

CAN DRY AND DEFAT SKIN CAUSING CRACKS, IRRITATION AND DERMATITIS.

**EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

CAN CAUSE SEVERE IRRITATION, TEARING, REDNESS AND BLURRED VISION.

**SENSITIZATION:**

POTENTIAL SKIN SENSITIZER.

**INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

EARLY MODERATE CENTRAL NERVOUS SYSTEM DEPRESSION AS EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA. IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR.

**ORAL INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

CAN CAUSE GASTROINTESTINAL IRRITATION, VOMITING, NAUSEA, AND DIARRHEA.

**EFFECTS OF OVEREXPOSURE:**

**INHALATION:**

DIZZINESS, BREATHING DIFFICULTY, HEADACHES, LOSS OF COORDINATION.

**EYE CONTACT:**

SEVERE IRRITATION, TEARING, REDNESS, AND BLURRED VISION.

**SKIN CONTACT:**

CAN DRY AND DEFAT SKIN CAUSING CRACKS, IRRITATION AND DERMATITIS.

**INGESTION:**

CAN CAUSE GASTROINTESTINAL IRRITATION, VOMITING, NAUSEA, AND DIARRHEA.

**CARCINOGENICITY: NTP?NO**

**IARC MONOGAPHS?NO.**

**OSHA REGULATED?YES.**

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:**

ALLERGY, ECZEMA, ASTHMA, OTHER SKIN CONDITIONS.

**EMERGENCY AND FIRST AID PROCEDURES:**

**EYE CONTACT:**

IRRIGATE WITH FLOWING WATER IMMEDIATELY AND CONTINUOUSLY FOR 15 MINUTES.  
CONSULT MEDICAL PERSONNEL.

**SKIN CONTACT:**

IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH CLOTHING BEFORE REUSE. WASH OFF WITH SOAP AND FLOWING WATER OR SHOWER. IF SKIN IRRITATION PERSISTS, SEE A

PHYSICIAN.

**INGESTION:**

DO NOT INDUCE VOMITING. CALL A PHYSICIAN AND/OR TRANSPORT TO A MEDICAL FACILITY IMMEDIATELY.

**INHALATION OVEREXPOSURE:**

REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE MOUTH-TO-MOUTH RESUSCITATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN.

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**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

REMOVE ALL SOURCES OF IGNITION. PROVIDE EXPLOSION PROOF VENTILATION. DIKE SPILL AREA AND TAKE UP ON ABSORBENT MATERIAL. SHOVEL WITH NON-SPARKING TOOLS INTO CLOSABLE CONTAINER FOR DISPOSAL. WEAR PROTECTIVE EQUIPMENT SPECIFIED BELOW. THOROUGHLY FLUSH CONTAMINATED AREA WITH WATER.

**WASTE DISPOSAL METHOD:**

DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:**

KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING VAPOR, MIST OR SPRAY. USE ONLY WITH GOOD VENTILATION. WASH AFTER HANDLING. STORE IN CLOSED CONTAINERS IN COOL, WELL VENTILATED AREA.

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**SECTION VIII - SPECIAL PROTECTION INFORMATION**

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**RESPIRATORY PROTECTION:**

ATMOSPHERIC CONCENTRATIONS SHOULD BE MAINTAINED BELOW THE THRESHOLD LIMIT GUIDELINES PROVIDED. WHEN THESE CONCENTRATIONS CANNOT BE MAINTAINED, RESPIRATORY PROTECTION IS REQUIRED. USE NIOSH/MSA APPROVED CHEMICAL/MECHANICAL FILTERS DESIGNED TO REMOVE A COMBINATION OF PARTICULATE, GASEOUS AND VAPOR MATERIALS. IN CONFINED AREAS, USE A NIOSH/MSA APPROVED POSITIVE-PRESSURE, SELF-CONTAINED BREATHING APPARATUS. WEAR RESPIRATORY PROTECTION SUCH AS NIOSH/MSHA TC-21C-132 DUST/MIST RESPIRATOR WHEN SANDING, GRINDING, BLASTING OR CUTTING THE DRY FILM OF THIS MATERIAL.

**VENTILATION:**

WHERE POSSIBLE, PROVIDE GENERAL AND/OR LOCAL EXHAUST VENTILATION TO CONTROL AIRBORNE LEVELS BELOW THE THRESHOLD LIMIT VALUES.

**SKIN PROTECTION:**

FOR BRIEF CONTACT, NO PRECAUTIONS OTHER THAN CLEAN BODY-COVERING CLOTHING SHOULD BE NEEDED. USE IMPERVIOUS GLOVES WHEN PROLONGED OR FREQUENTLY REPEATED CONTACT MIGHT OCCUR.

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**EYE PROTECTION:**

USE SPLASH PROOF CHEMICAL GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.

**OTHER RECOMMENDED PROTECTIVE MEASURES:**

USE IMPERMEABLE CLOTHING, APRONS AND PROTECTIVE COVERING WHENEVER POSSIBLE TO PREVENT SKIN CONTACT. WEAR HEAD COVERING WHENEVER POSSIBLE.

**RECOMMENDED HYGIENIC PRACTICES:**

WASH HANDS AND ARMS WITH SOAP AND WATER PRIOR TO EATING, DRINKING, SMOKING OR USING THE LAVATORY.

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**SECTION IX - DISCLAIMERS**

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THE INFORMATION CONTAINED HEREIN IS BASED PRIMARILY ON DATA PROVIDED US BY OUR SUPPLIERS, AND WE BELIEVE IT TO BE CORRECT. HOWEVER, INDURON COATINGS, INC. MAKES NO WARRENTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. INDURON ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.



**MATERIAL SAFETY DATA SHEET**

PERMASTIC POLYURETHANE CTB PART A

Page: 1  
5/6/2015

PRODUCT NAME: PERMASTIC POLYURETHANE CTB PART A  
PRODUCT CODE: A4-1857C

HMIS CODES: H F R P  
2 3 0 H

**SECTION I - MANUFACTURERS IDENTIFICATION**

MANUFACTURER'S NAME: INDURON PROTECTIVE COATINGS, LLC  
ADDRESS: 3333 RICHARD ARRINGTON Jr BLVD, N.  
BIRMINGHAM, ALABAMA 35234

EMERGENCY PHONE: 1-800-424-9300 INFORMATION PHONE: (205) 324-9584  
DATE PRINTED: 5/6/2015

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

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP		WEIGHT PERCENT
! CALCIUM CARBONATE TLV=10 MG/M3 (NUISANCE DUST)	471-34-1	N/A		15 - 20%
POLYESTER RESIN NONE ESTABLISHED		N/A	n/a	15 - 20%
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE NONE ESTABLISHED	108-65-6	3.7	20 C	15 - 20%
1-CHLORO-4 (TRIFLUOROMETHYL) BENZENE NONE ESTABLISHED	98-56-6	5.3	20 C	5 - 10%
XYLENE (MIXED ISOMERS) PEL/TWA=100PPM, TLV/TWA=100PPM, TLV/STEL=150PPM	1330-20-7	5.1	68 F	< 5%
BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDINYL) SEBACATE	41556-26-7	NEG.		< 5%
2 MODIFICATIONS OF POLY(OXY-1,2-ETHANEDIYL) NONE ESTABLISHED	104810-47-1	<.000001	25 C	< 5%
XYLENE (MIXED ISOMERS) PEL/TWA=100PPM, TLV/TWA=100PPM, TLV/STEL=150PPM 75% DIMETHYLBENZENE CAS 1330-20-7 25% ETHYLBENZENE CAS 100-41-4		5.1	68 F	.46

\* INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF 40 CFR 372.

! NOTE: PIGMENTS DO NOT NORMALLY POSE A DUST HAZARD IN COATINGS.

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**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

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**BOILING RANGE:** 279 F - 293 F                      **DENSITY:** 11.397 lb/gl

**VAPOR DENSITY:** HEAVIER THAN AIR.

**EVAPORATION RATE:** SLOWER THAN DIETHYL ETHER.

**COATING VOC (Water Excluded):** 3.17 lb/gl, 380 g/l

**SOLUBILITY IN WATER:** VERY SLIGHTLY SOLUBLE.

**APPEARANCE AND ODOR:**

Opaque, Viscous liquid. Aromatic Hydrocarbon and Ketone solvent odors.

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

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**FLASH POINT:** 80 F                                      **METHOD USED:** CC

**FLAMMABLE LIMITS IN AIR BY VOLUME-LOWER:** 0.9                      **UPPER:** 10.5

**EXTINGUISHING MEDIA:**

CARBON DIOXIDE, FOAM, DRY CHEMICAL, WATER SPRAY.

**SPECIAL FIREFIGHTING PROCEDURES:**

USE SELF CONTAINED BREATHING APPARATUS. WATER SHOULD BE USED AS A FOG ONLY, TO KEEP CONTAINERS COOL IN ORDER TO MINIMIZE PRESSURE BUILDUP AND EXPLOSION.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

THIS MATERIAL IS FLAMMABLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME AND OTHER SOURCES OF IGNITION (E.G. STATIC ELECTRICITY, PILOT LIGHTS, MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY TRAVEL CONSIDERABLE DISTANCES TO A SOURCE OF IGNITION WHERE THEY MAY IGNITE, FLASHBACK OR EXPLODE. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS, WHERE THEY MAY REACH IGNITABLE CONCENTRATIONS THOUGH THE TEMPERATURE MAY REMAIN BELOW THE FLASH POINT. IF CONTAINER IS NOT PROPERLY COOLED, IT MAY EXPLODE IN THE HEAT OF A FIRE.

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**SECTION V - REACTIVITY DATA**

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**STABILITY:** STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.

**CONDITIONS TO AVOID:**

AVOID HEAT, SPARKS, FLAME AND OTHER POSSIBLE IGNITION SOURCES.

**INCOMPATIBILITY (MATERIALS TO AVOID):**

AVOID CONTACT WITH STRONG OXIDIZING AGENTS. MIXING WITH STRONG LEWIS OR MINERAL ACIDS AND STRONG MINERAL AND ORGANIC BASES, ESPECIALLY PRIMARY AND SECONDARY ALIPHATIC AMINES, CAN CAUSE GENERATION OF CONSIDERABLE HEAT.

**HAZARDOUS DECOMPOSITION BYPRODUCTS:**

CARBON MONOXIDE, ALDEHYDES AND ACIDS AND OTHER ORGANIC COMPOUNDS MAY BE FORMED

DURING COMBUSTION.

**HAZARDOUS POLYMERIZATION:**

WILL NOT OCCUR.

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**SECTION VI - HEALTH HAZARD DATA**

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**SKIN CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

CAN DRY AND DEFAT SKIN CAUSING CRACKS, IRRITATION AND DERMATITIS.

**EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

CAN CAUSE SEVERE IRRITATION, TEARING, REDNESS AND BLURRED VISION.

**SENSITIZATION:**

POTENTIAL SKIN SENSITIZER.

**INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

EARLY MODERATE CENTRAL NERVOUS SYSTEM DEPRESSION AS EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA. IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR.

**ORAL INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

CAN CAUSE GASTROINTESTINAL IRRITATION, VOMITING, NAUSEA, AND DIARRHEA.

**EFFECTS OF OVEREXPOSURE:**

**INHALATION:**

DIZZINESS, BREATHING DIFFICULTY, HEADACHES, LOSS OF COORDINATION.

**EYE CONTACT:**

SEVERE IRRITATION, TEARING, REDNESS, AND BLURRED VISION.

**SKIN CONTACT:**

CAN DRY AND DEFAT SKIN CAUSING CRACKS, IRRITATION AND DERMATITIS.

**INGESTION:**

CAN CAUSE GASTROINTESTINAL IRRITATION, VOMITING, NAUSEA, AND DIARRHEA.

**CARCINOGENICITY: NTP?NO**

**IARC MONOGAPHS?NO.**

**OSHA REGULATED?YES.**

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:**

ALLERGY, ECZEMA, ASTHMA, OTHER SKIN CONDITIONS.

**EMERGENCY AND FIRST AID PROCEDURES:**

**EYE CONTACT:**

IRRIGATE WITH FLOWING WATER IMMEDIATELY AND CONTINUOUSLY FOR 15 MINUTES.  
CONSULT MEDICAL PERSONNEL.

**SKIN CONTACT:**

IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH CLOTHING BEFORE REUSE. WASH OFF WITH SOAP AND FLOWING WATER OR SHOWER. IF SKIN IRRITATION PERSISTS, SEE A



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PHYSICIAN.

**INGESTION:**

DO NOT INDUCE VOMITING. CALL A PHYSICIAN AND/OR TRANSPORT TO A MEDICAL FACILITY IMMEDIATELY.

**INHALATION OVEREXPOSURE:**

REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE MOUTH-TO-MOUTH RESUSCITATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN.

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**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

---

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

REMOVE ALL SOURCES OF IGNITION. PROVIDE EXPLOSION PROOF VENTILATION. DIKE SPILL AREA AND TAKE UP ON ABSORBENT MATERIAL. SHOVEL WITH NON-SPARKING TOOLS INTO CLOSABLE CONTAINER FOR DISPOSAL. WEAR PROTECTIVE EQUIPMENT SPECIFIED BELOW. THOROUGHLY FLUSH CONTAMINATED AREA WITH WATER.

**WASTE DISPOSAL METHOD:**

DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:**

KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING VAPOR, MIST OR SPRAY. USE ONLY WITH GOOD VENTILATION. WASH AFTER HANDLING. STORE IN CLOSED CONTAINERS IN COOL, WELL VENTILATED AREA.

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**SECTION VIII - SPECIAL PROTECTION INFORMATION**

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**RESPIRATORY PROTECTION:**

ATMOSPHERIC CONCENTRATIONS SHOULD BE MAINTAINED BELOW THE THRESHOLD LIMIT GUIDELINES PROVIDED. WHEN THESE CONCENTRATIONS CANNOT BE MAINTAINED, RESPIRATORY PROTECTION IS REQUIRED. USE NIOSH/MSA APPROVED CHEMICAL/MECHANICAL FILTERS DESIGNED TO REMOVE A COMBINATION OF PARTICULATE, GASEOUS AND VAPOR MATERIALS. IN CONFINED AREAS, USE A NIOSH/MSA APPROVED POSITIVE-PRESSURE, SELF-CONTAINED BREATHING APPARATUS. WEAR RESPIRATORY PROTECTION SUCH AS NIOSH/MSHA TC-21C-132 DUST/MIST RESPIRATOR WHEN SANDING, GRINDING, BLASTING OR CUTTING THE DRY FILM OF THIS MATERIAL.

**VENTILATION:**

WHERE POSSIBLE, PROVIDE GENERAL AND/OR LOCAL EXHAUST VENTILATION TO CONTROL AIRBORNE LEVELS BELOW THE THRESHOLD LIMIT VALUES.

**SKIN PROTECTION:**

FOR BRIEF CONTACT, NO PRECAUTIONS OTHER THAN CLEAN BODY-COVERING CLOTHING SHOULD BE NEEDED. USE IMPERVIOUS GLOVES WHEN PROLONGED OR FREQUENTLY REPEATED CONTACT MIGHT OCCUR.

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**EYE PROTECTION:**

USE SPLASH PROOF CHEMICAL GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.

**OTHER RECOMMENDED PROTECTIVE MEASURES:**

USE IMPERMEABLE CLOTHING, APRONS AND PROTECTIVE COVERING WHENEVER POSSIBLE TO PREVENT SKIN CONTACT. WEAR HEAD COVERING WHENEVER POSSIBLE.

**RECOMMENDED HYGIENIC PRACTICES:**

WASH HANDS AND ARMS WITH SOAP AND WATER PRIOR TO EATING, DRINKING, SMOKING OR USING THE LAVATORY.

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**SECTION IX - DISCLAIMERS**

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THE INFORMATION CONTAINED HEREIN IS BASED PRIMARILY ON DATA PROVIDED US BY OUR SUPPLIERS, AND WE BELIEVE IT TO BE CORRECT. HOWEVER, INDURON COATINGS, INC. MAKES NO WARRENTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. INDURON ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.



**MATERIAL SAFETY DATA SHEET**

PERMA-SERIES ACTIVATOR

Page: 1  
10/22/2013

PRODUCT NAME: PERMA-SERIES ACTIVATOR  
PRODUCT CODE: Q4-1214

HMIS CODES: H F R P  
2 \* 2 1 H

**SECTION I - MANUFACTURERS IDENTIFICATION**

MANUFACTURER'S NAME: INDURON PROTECTIVE COATINGS, INC.  
ADDRESS: 3333 RICHARD ARRINGTON Jr BLVD, N.  
BIRMINGHAM, ALABAMA 35234

EMERGENCY PHONE: 1-800-424-9300  
DATE PRINTED: 10/22/2013

INFORMATION PHONE: (205) 324-9584

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

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
POLYMERIC ALIPHATIC ISOCYANATE NONE ESTABLISHED		N/A	<=100%
N-BUTYL ACETATE ACGIH TWA=150 PPM, OSHA PEL=150 PPM, ACGIH STEL=200 PPM	123-86-4	8.43 20 C	5 - 10%
HEXAMETHYLENE DIISOCYANATE ACGIH TWA=.005 PPM	822-06-0		< 5%

\* INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF 40 CFR 372.

! NOTE: PIGMENTS DO NOT NORMALLY POSE A DUST HAZARD IN COATINGS.

**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

BOILING RANGE: 258 F

DENSITY: 9.4 lb/gl

VAPOR DENSITY: HEAVIER THAN AIR.

EVAPORATION RATE: SLOWER THAN DIETHYL ETHER.

COATING VOC (Water Excluded): 0.94 lb/gl, 113 g/l

SOLUBILITY IN WATER: VERY SLIGHTLY SOLUBLE.

APPEARANCE AND ODOR:

Opaque, Viscous liquid. Aromatic Hydrocarbon and Ketone solvent odors.

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

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**FLASH POINT:** 104F

**METHOD USED:**

**FLAMMABLE LIMITS IN AIR BY VOLUME-LOWER:** 1.7

**UPPER:** 7.6

**EXTINGUISHING MEDIA:**

CARBON DIOXIDE, FOAM, DRY CHEMICAL, WATER SPRAY.

**SPECIAL FIREFIGHTING PROCEDURES:**

USE SELF CONTAINED BREATHING APPARATUS. WATER SHOULD BE USED AS A FOG ONLY, TO KEEP CONTAINERS COOL IN ORDER TO MINIMIZE PRESSURE BUILDUP AND EXPLOSION.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

THIS MATERIAL IS FLAMMABLE AND MAY BE IGNITED BY HEAT, SPARKS, FLAME AND OTHER SOURCES OF IGNITION (E.G. STATIC ELECTRICITY, PILOT LIGHTS, MECHANICAL/ELECTRICAL EQUIPMENT). VAPORS MAY TRAVEL CONSIDERABLE DISTANCES TO A SOURCE OF IGNITION WHERE THEY MAY IGNITE, FLASHBACK OR EXPLODE. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS, WHERE THEY MAY REACH IGNITABLE CONCENTRATIONS THOUGH THE TEMPERATURE MAY REMAIN BELOW THE FLASH POINT. IF CONTAINER IS NOT PROPERLY COOLED, IT MAY EXPLODE IN THE HEAT OF A FIRE.

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**SECTION V - REACTIVITY DATA**

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**STABILITY:** STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.

**CONDITIONS TO AVOID:**

AVOID HEAT, SPARKS, FLAME AND OTHER POSSIBLE IGNITION SOURCES.

**INCOMPATIBILITY (MATERIALS TO AVOID):**

AVOID CONTACT WITH STRONG OXIDIZING AGENTS. MIXING WITH STRONG LEWIS OR MINERAL ACIDS AND STRONG MINERAL AND ORGANIC BASES, ESPECIALLY PRIMARY AND SECONDARY ALIPHATIC AMINES, CAN CAUSE GENERATION OF CONSIDERABLE HEAT.

**HAZARDOUS DECOMPOSITION BYPRODUCTS:**

CARBON MONOXIDE, ALDEHYDES AND ACIDS AND OTHER ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

**HAZARDOUS POLYMERIZATION:**

WILL NOT OCCUR.

---

**SECTION VI - HEALTH HAZARD DATA**

---

**SKIN CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

CAN DRY AND DEFAT SKIN CAUSING CRACKS, IRRITATION AND DERMATITIS.

**EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

CAN CAUSE SEVERE IRRITATION, TEARING, REDNESS AND BLURRED VISION.

**SENSITIZATION:**

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POTENTIAL SKIN SENSITIZER.

**INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:**

EARLY MODERATE CENTRAL NERVOUS SYSTEM DEPRESSION AS EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA. IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR.

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CAN CAUSE GASTROINTESTINAL IRRITATION, VOMITING, NAUSEA, AND DIARRHEA.

**EFFECTS OF OVEREXPOSURE:**

**INHALATION:**

DIZZINESS, BREATHING DIFFICULTY, HEADACHES, LOSS OF COORDINATION.

**EYE CONTACT:**

SEVERE IRRITATION, TEARING, REDNESS, AND BLURRED VISION.

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**INGESTION:**

CAN CAUSE GASTROINTESTINAL IRRITATION, VOMITING, NAUSEA, AND DIARRHEA.

**CARCINOGENICITY: NTP?NO**

**IARC MONOGRAPHS?NO.**

**OSHA REGULATED?YES.**

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:**

ALLERGY, ECZEMA, ASTHMA, OTHER SKIN CONDITIONS.

**EMERGENCY AND FIRST AID PROCEDURES:**

**EYE CONTACT:**

IRRIGATE WITH FLOWING WATER IMMEDIATELY AND CONTINUOUSLY FOR 15 MINUTES. CONSULT MEDICAL PERSONNEL.

**SKIN CONTACT:**

IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH CLOTHING BEFORE REUSE. WASH OFF WITH SOAP AND FLOWING WATER OR SHOWER. IF SKIN IRRITATION PERSISTS, SEE A PHYSICIAN.

**INGESTION:**

DO NOT INDUCE VOMITING. CALL A PHYSICIAN AND/OR TRANSPORT TO A MEDICAL FACILITY IMMEDIATELY.

**INHALATION OVEREXPOSURE:**

REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE MOUTH-TO-MOUTH RESUSCITATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN.

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

REMOVE ALL SOURCES OF IGNITION. PROVIDE EXPLOSION PROOF VENTILATION. DIKE SPILL AREA AND TAKE UP ON ABSORBENT MATERIAL. SHOVEL WITH NON-SPARKING TOOLS INTO CLOSABLE CONTAINER FOR DISPOSAL. WEAR PROTECTIVE EQUIPMENT SPECIFIED BELOW. THOROUGHLY FLUSH CONTAMINATED AREA WITH WATER.

**WASTE DISPOSAL METHOD:**

DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:**

KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAME. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING VAPOR, MIST OR SPRAY. USE ONLY WITH GOOD VENTILATION. WASH AFTER HANDLING. STORE IN CLOSED CONTAINERS IN COOL, WELL VENTILATED AREA.

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**SECTION VIII - SPECIAL PROTECTION INFORMATION**

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**RESPIRATORY PROTECTION:**

ATMOSPHERIC CONCENTRATIONS SHOULD BE MAINTAINED BELOW THE THRESHOLD LIMIT GUIDELINES PROVIDED. WHEN THESE CONCENTRATIONS CANNOT BE MAINTAINED, RESPIRATORY PROTECTION IS REQUIRED. USE NIOSH/MSA APPROVED CHEMICAL/MECHANICAL FILTERS DESIGNED TO REMOVE A COMBINATION OF PARTICULATE, GASEOUS AND VAPOR MATERIALS. IN CONFINED AREAS, USE A NIOSH/MSA APPROVED POSITIVE-PRESSURE, SELF-CONTAINED BREATHING APPARATUS. WEAR RESPIRATORY PROTECTION SUCH AS NIOSH/MSHA TC-21C-132 DUST/MIST RESPIRATOR WHEN SANDING, GRINDING, BLASTING OR CUTTING THE DRY FILM OF THIS MATERIAL.

**VENTILATION:**

WHERE POSSIBLE, PROVIDE GENERAL AND/OR LOCAL EXHAUST VENTILATION TO CONTROL AIRBORNE LEVELS BELOW THE THRESHOLD LIMIT VALUES.

**SKIN PROTECTION:**

FOR BRIEF CONTACT, NO PRECAUTIONS OTHER THAN CLEAN BODY-COVERING CLOTHING SHOULD BE NEEDED. USE IMPERVIOUS GLOVES WHEN PROLONGED OR FREQUENTLY REPEATED CONTACT MIGHT OCCUR

**EYE PROTECTION:**

USE SPLASH PROOF CHEMICAL GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.

**OTHER RECOMMENDED PROTECTIVE MEASURES:**

USE IMPERMEABLE CLOTHING, APRONS AND PROTECTIVE COVERING WHENEVER POSSIBLE TO PREVENT SKIN CONTACT. WEAR HEAD COVERING WHENEVER POSSIBLE.

**RECOMMENDED HYGIENIC PRACTICES:**

WASH HANDS AND ARMS WITH SOAP AND WATER PRIOR TO EATING, DRINKING, SMOKING OR USING THE LAVATORY.



**MATERIAL SAFETY DATA SHEET**

PERMA-SERIES ACTIVATOR

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**SECTION IX - DISCLAIMERS**

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