



Pro Form Products Ltd.
604 McGeachie Drive
Milton, Ontario, L9T 3Y5
Canada
905-878-4990

PRODUCT: RCIH0012P ACRYLIC ALKYD HARDENER

SECTION 01: IDENTIFICATION

Initial supplier identifier..... Pro Form Products Ltd.
604 McGeachie Drive
Milton, Ontario L9T3Y5
Tel (905) 878-4990 Fax (905) 878-1189

Product identifier..... RCIH0012P ACRYLIC ALKYD HARDENER

Recommended use and restrictions on .. Paints.
use

Chemical family..... Mixture.

NFPA rating..... Health: 3 Fire: 3 Reactivity: 1.

HMIS..... H: 3 F: 3 R: 1.

24 hour emergency number..... For transportation emergencies (in Canada) call CANUTEC 1-888-226-8832 (CAN-UTEC);
IN THE UNITED STATES CALL CHEMTREC 1-800-424-9300.
** For medical emergencies contact your local poison control centre **.

SECTION 02: HAZARD IDENTIFICATION



Signal Word..... DANGER.

Hazard Classification..... Flammable Liquid 3. Aspiration Toxicity 1. Skin Irritation — Category 2. Skin Sensitizer — Category 1. Acute Toxicity (Inhalation) — Category 4. Specific Target Organ Toxicity — Single Exposure — Category 3. (narcotic effects). (respiratory system). Germ Cell Mutagenicity 1. Carcinogenicity — Category 1. Reproductive Toxicity — Category 2.

Hazard Description..... H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H340 May cause genetic defects. H350 This product contains ingredients that may cause cancer. H361 Suspected of damaging fertility or the unborn child.

Prevention..... P201 Obtain special instructions before use. P202 Do not handle this product until all safety instructions have been read and understood. P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion proof equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing mists, vapours and sprays. P264 Wash thoroughly after handling. P271 Use only outdoors or in a well ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves and eye protection.

Response P370 + P378 In case of fire - use dry chemical powder, CO2 or foam to extinguish. P303 + P361 + P353 If on skin or in hair: take off all contaminated clothing immediately. Rinse thoroughly with water and use safety shower . P301 + P310 If swallowed IMMEDIATELY CALL A POISON CONTROL CENTRE and follow instructions provided by the centre. P331 Do NOT induce vomiting. P304 + P340 - If inhaled remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/doctor if you feel unwell. P302 + P352 - If on skin: wash with plenty of water. P362 + P364 - Take off contaminated clothing and wash before reuse. P333 + P313 If skin irritation or rash occurs, get medical advice/attention. P308 + P313 If exposed or concerned, get medical advice/attention.

Storage..... P233 Keep container tightly closed. P403 + P235 Store in well ventilated area. Keep cool. P405 Store locked up.

Disposal..... P501 Dispose all unused, waste or empty containers in accordance with local regulations.

Note This product mixture has been classified based on its ingredients.

PRODUCT: RCIH0012P ACRYLIC ALKYD HARDENER**SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS**

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Light aromatic naphtha*	64742-95-6	10-30
Xylene	1330-20-7	10-30
Homopolymer of IPDI	53880-05-0	15-40
Polyisocyanate based on HDI	9048-90-2	7-21
Isophorone Diisocyanate	4098-71-9	0.1-1
Butyl Acetate	123-86-4	5-16
*Light aromatic naphtha (64742-95-6) contains: 1,2,4-trimethylbenzene (<32%), Cumene (<1.1%), and xylene (<2.2%)		
<<The actual concentration(s) withheld as a trade secret>>		

SECTION 04: FIRST-AID MEASURES

Eye contact.....	In case of contact, immediately flush eyes, keeping eyelids open, with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin contact.....	Remove all contaminated clothing and immediately wash the exposed areas with copious amounts of water for a minimum of 30 minutes or up to 60 minutes for critical body areas. Wash clothing before reuse. If irritation persists, seek medical attention.
Inhalation.....	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen, obtain medical attention.
Ingestion.....	If ingestion is suspected, contact physician or poison control center immediately. Do not induce vomiting. If spontaneous vomiting occurs have victim lean forward with head down to prevent aspiration of fluid into the lungs. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, whether acute or delayed	Harmful if swallowed, in contact with skin or if inhaled. May cause eye irritation. Causes skin irritation. Can cause skin sensitization. High vapour concentrations may be irritating to the respiratory tract. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause irritation of the mucous membranes. May cause irritation of the digestive tract. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea. This product contains ingredients that are suspected of damaging fertility or the unborn child. This product contains ingredients that may cause cancer.
Additional information.....	Treat victims symptomatically. The main hazard from ingestion is aspiration of the liquid into the lungs producing chemical pneumonitis. Eye: stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Workplace vapours have produced reversible corneal epithelial edema impairing vision. Respiratory: this compound is a known pulmonary sensitizer. Treatment is essentially symptomatic. An individual having a skin or pulmonary sensitization reaction to this material should be removed from exposure to any isocyanate. In the event of an incident involving this product ensure that medical authorities are provided a copy of this safety data sheet.

SECTION 05: FIRE-FIGHTING MEASURES

Suitable extinguishing media.....	"Alcohol" foam, CO ₂ , dry chemical. Water spray. Do not use water in a jet.
Specific hazards arising from the hazardous product, such as the nature of any hazardous combustion products	Extremely flammable. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Oxides of carbon (CO, CO ₂). Hydrogen cyanide. Isocyanates. Isocyanic acid. Chlorine compounds. Hydrocarbon fumes and smoke.
Special protective equipment and precautions for fire-fighters	Firefighter should be equipped with self-contained breathing apparatus and full protective clothing to protect against potentially toxic and irritating fumes. Cool fire-exposed containers with cold water spray. Heat will cause pressure buildup and may cause explosive rupture. Solvent vapours may be heavier than air and may build up and travel along the ground to an ignition source, which may result in a flash back to the source of the vapours. Keep run-off water from entering sewers and other waterways. Dike for water control.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Leak/spill.....	Ventilate. Eliminate all sources of ignition. Evacuate all non-essential personnel. Contain the spill. Prevent runoff into drains, sewers, and other waterways. Avoid all personal contact. Absorb with earth, sand, or another dry inert material. Scrape or shovel into containers. Use an aqueous solution of ammonia or other suitable isocyanate neutralizing solution to clean up any unreacted prepolymer residue. Spilled material and water rinses are classified as chemical waste, and must be disposed of in accordance with current local, provincial, state, and federal regulations.
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PRODUCT: RCIH0012P ACRYLIC ALKYD HARDENER

SECTION 06: ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up . . . Dike area to contain the spill, prevent runoff from going into drains, absorb residual material with an inert absorbent, shovel or pump to a properly labelled container and dispose of as a hazardous waste. Use an aqueous solution of ammonia or other suitable isocyanate neutralizing solution to clean up any unreacted prepolymer residue. Do not use neutralizing solution on large spills as heat may be generated. Use a Swype test kit to test for residual isocyanates.

SECTION 07: HANDLING AND STORAGE

Precautions for safe handling..... Extremely flammable. Keep away from heat, sparks, and open flame. Prevent accumulation of electrostatic charges. Ensure that equipment is properly bonded and grounded during filling and transferring as product may become electrostatically charged. Avoid all skin contact. Handle with care. Avoid breathing vapours or mist. Ventilate adequately, otherwise wear an appropriate breathing apparatus. Employees should wash hands and face before eating or drinking.

Conditions for safe storage, including any incompatibilities Keep away from heat, sparks, and open flames. Keep container closed when not in use. Store away from incompatible materials. Avoid: Water, Amines, Strong bases, Alcohols, Copper alloys. Do not store above 50 deg C.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	TWA	ACGIH TLV STEL	OSHA PEL STEL	NIOSH REL	
Light aromatic naphtha*	Not established	Not established	500 ppm (2000 mg/m3) TWA	350 mg/m3 TWA	
Xylene	50 ppm CA ON: 100ppm (TWA); 150ppm (STEL)	150 ppm	100 ppm TWA	Not established	
Homopolymer of IPDI	Not established	Not established	Not established	Not established	
Polyisocyanate based on HDI			0.5 mg/m3 (supplier)	1 mg/m3 (supplier)	
Isophorone Diisocyanate	0.005 ppm	Not established	Not established	0.005 ppm skin	
Butyl Acetate	150 ppm CA ON: 50ppm (TWA), 150 ppm (STEL)	200 ppm	150 ppm	200 ppm vacated 150 ppm - STEL 200 ppm	
Appropriate engineering controls.....	Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. Local mechanical exhaust ventilation should be used at sources of air contamination, such as open process equipment, or during purging operations, to capture gases and fumes that may be emitted. Standard reference sources regarding industrial ventilation (ie. ACGIH industrial ventilation) should be consulted for guidance about adequate ventilation. Explosion-proof exhaust ventilation.				
Personal Protective Equipment					
Eye/type.....	Chemical safety goggles and full faceshield if a splash hazard exists.				
Gloves/ type.....	Wear skin protection equipment. The selection of skin protection equipment depends on the nature of the work to be performed. For protection from isocyanates: . Nitrile rubber. Butyl rubber. Neoprene.				
Clothing/type.....	Wear adequate protective clothes.				
Footwear/type.....	Safety boots per local regulations.				
Respiratory/type.....	Local exhaust ventilation is recommended. Whenever concentrations of isocyanates exceed the exposure limit or are not known, respiratory protection must be worn.				
Other/type.....	Emergency showers and eye wash stations should be available. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees on the safe use and handling of the product.				
Medical surveillance.....	Medical supervision of all employees who handle or come in contact with isocyanates is recommended. These should include preemployment and periodic medical examinations with pulmonary function test (FEC, FVC as a minimum). Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurring skin eczema or sensitization should be excluded from working with isocyanates. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be permitted.				
Monitoring.....	Exposure levels must be monitored by accepted monitoring techniques to ensure that the TLV is not exceeded.				

PRODUCT: RCIH0012P ACRYLIC ALKYD HARDENER**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance/Physical state.....	Liquid.
Colour.....	Pale yellow.
Odour.....	Characteristic odour. Light solvent.
Odour threshold (ppm).....	Not available.
pH.....	No data.
Melting / Freezing point (deg C).....	< -24 C.
Initial boiling point / boiling range (deg C).....	>126°C.
Flash point (deg C), method.....	24°C. (estimate; lowest flash point ingredient).
Evaporation rate.....	No data.
Flammability (solids and gases).....	Not applicable. Flammable liquid.
Upper flammable limit (% vol).....	7.5.
Lower flammable limit (% vol).....	0.9.
Vapour pressure (mm Hg).....	No data.
Vapour density (air=1).....	>1.
Relative Density (Specific Gravity).....	0.953.
Pounds / USG.....	7.95.
Solubility.....	Reacts slowly with water to liberate CO2 gas. Insoluble.
Partition coefficient — n-octanol/water.....	Not available.
Auto ignition temperature (deg C).....	> 400°C.
Decomposition temperature.....	Not available.
Viscosity.....	23.74 sec # 2 Zahn .
% Volatile by volume.....	64.99.
VOC LBS/GAL less water.....	4.71 lbs/USG.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Contact with moisture, other materials that react with isocyanates, or temperatures above 177 C, may cause polymerization.
Chemical stability.....	Stable at normal temperatures and pressures.
Possibility of hazardous reactions.....	Contact with moisture, other materials that react with isocyanates, or temperatures above 177C, may cause polymerization.
Conditions to avoid, including static discharge, shock or vibration	Avoid heat, spark, open flames. Electrostatic charge.
Incompatible materials.....	Strong oxidizing agents. Water, Amines, Strong bases, Alcohols, Copper alloys. Acids. Bromine. Florine. Reducing agents.
Hazardous decomposition products.....	Oxides of carbon (CO,CO2). Smoke. Hydrogen cyanide. Isocyanates. Isocyanic acid.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Light aromatic naphtha*	10.2 mg/L (inhal, hr.)	>3400 mg/kg (oral, rat). >2000 mg/kg (dermal, rabbit)
Xylene	6350 ppm 4 hours rat	>3523 mg/kg rat oral
Homopolymer of IPDI	Not Available	Not Available
Polyisocyanate based on HDI	1.851 mg/L (h4r)	>5000 mg/kg (oral, rat). >2000 mg/kg (dermal, rat)
Isophorone Diisocyanate	123 mg/m3 4 hours rat	>1,000 mg/kg (rat oral) 1,060 mg/kg (rat dermal)
Butyl Acetate	390 ppm (4 hr)	10768 mg/kg oral rat 17600 mg/kg dermal rabbit
Route of exposure.....	Eye contact. Skin contact. Inhalation.	
Effects of acute exposure.....	May cause sensitization by skin contact. Contact with eyes may cause irritation. Can cause moderate skin irritation. Inhalation of vapours or mist may cause drowsiness or dizziness. Causes respiratory tract irritation.	
Effects of chronic exposure.....	May aggravate pre-existing skin and eye disorders. Prolonged or repeated exposure may result in an allergic respiratory reaction in sensitive individuals. Breathing high concentrations of vapour may cause anesthetic effects and serious health effects. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal. Isocyanates are known to cause skin and respiratory sensitization in humans. Animal tests have indicated that respiratory sensitization can result from skin contact with diisocyanates.	
Sensitizing capability of material.....	This product may cause skin sensitization. Isocyanates are known to cause skin and respiratory sensitization in humans. Animal tests have indicated that respiratory sensitization can result from skin contact with diisocyanates.	

PRODUCT: RCIH0012P ACRYLIC ALKYD HARDENER**SECTION 11: TOXICOLOGICAL INFORMATION**

Carcinogenicity of material.....	Commercial xylene is a mixture containing varying percentages of isomers of xylene (ortho-xylene , meta-xylene , and para-xylene), ethylbenzene, and certain impurities (eg, trimethylbenzene, phenol, thiophene, pyridine, toluene) , pseudocumene, benzene, nonaromatic hydrocarbons). Ethylbenzene is classified as an A3 known animal carcinogen.
Reproductive effects.....	Xylene has been classified by The Commission on Health and Safety as causing reproductive effects. High level exposure to Xylene in some animal studies have been reported to cause health effects on the developing embryo/fetus. The relevance of this to humans is not known. Solvent Naphtha is classified as a possible reproductive toxin.
Mutagenicity.....	Ethylbenzene has been shown to be mutagenic for mammalian somatic cells. Solvent Naphtha is classified as a possible mutagen .
Specific Target Organ Toxicity	Causes damage to organs through prolonged or repeated exposure . (Blood, kidneys, liver, CNS). May cause respiratory irritation. May cause drowsiness or dizziness. Damage to central nervous system.

SECTION 12: ECOLOGICAL INFORMATION

Environmental.....	Do not allow to enter waters, waste water or soil.
Other adverse effects.....	Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Information on safe handling for disposal and methods of disposal, including any contaminated packaging	Dispose of waste in accordance with all applicable Federal, Provincial/State and local regulations. Empty containers must be handled with care due to product residue.
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SECTION 14: TRANSPORT INFORMATION

TDG Classification.....	UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group III - This product meets the limited quantity exemption when packaged in containers less than 5 liters .
DOT Classification (Road).....	UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group III - This product meets the limited quantity exemption when packaged in containers less than 5 liters . Refer to 49CFR 172.101 for additional non-bulk packaging requirements.
IATA Classification (Air).....	UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group III. Limited Quantity. Do not ship by air without checking appropriate IATA regulations.
IMDG Classification (Marine).....	UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group III - EmS: F-E S-E . Limited Quantity. Check IMDG regulations for limited quantity exemptions.
Marine Pollutant.....	Yes.
Proof of Classification.....	In accordance with Part 2.2.1 of the Transportation of Dangerous Goods Regulations (July 2, 2014) - we certify that classification of this product is correct. .

SECTION 15: REGULATORY INFORMATION

CEPA status.....	On Domestic Substances List (DSL).
TSCA inventory status.....	All components are either listed or exempt from the TSCA. .
OSHA.....	This product is considered hazardous under the OSHA Hazard Communication Standard.
SARA Title III	
Section 302 - extremely hazardous substances	None.
Section 311/312 - hazard categories	Immediate health, delayed health, fire hazard.
Section 313.....	1,2,4-Trimethylbenzene. Ethylbenzene. Xylene.
EPA hazardous air pollutants (HAPS) 40CFR63	Ethylbenzene. Hexamethylene diisocyanate. Xylene.
California Proposition 65.....	*** ! WARNING: This product can expose you to chemicals including [see below], which are known to the State of California to cause birth defects or other reproductive harm. (Methanol). *** ! WARNING: This product can expose you to chemicals including [see below], which are known to the State of California to cause cancer . (Cumene). (Ethyl benzene). For more information, go to www.P65Warnings.ca.gov .

SECTION 16: OTHER INFORMATION

Prepared by:	REGULATORY AFFAIRS.
Telephone number:.....	(800) 387-7981.
Disclaimer:.....	DISCLAIMER: All information appearing herein is based upon data obtained from experience and recognized technical sources. To the best of our knowledge, it is believed to be correct as of the date of issue but we make no representations as to its accuracy or sufficiency and do not suggest or guarantee that any hazards listed herein are the only ones which exist. The hazard information contained herein is offered solely for the

PRODUCT: RCIH0012P ACRYLIC ALKYD HARDENER

SECTION 16: OTHER INFORMATION

Disclaimer:..... consideration of the user, subject to his own investigation and verification of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. The information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

Review Date:..... 2022-11-30.

Date of the latest revision of the safety .. 2019-05-15
data sheet