



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

PRODUCT: RC-IA0010 Activator 2K Urethane Base

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..... RC-IA0010 Activator 2K Urethane Base

Recommended use and restrictions on .. Paints.
use

Chemical family..... Blend. Polyfunctional polyisocyanate.

NFPA rating..... Health: 2 Fire: 4 Reactivity: 1.

HMIS..... H: 2 F: 4 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 2. Skin Sensitizer 1. Acute Toxicity (Inhalation) — Category 4.
Respiratory Sensitizer 1. Specific Target Organ Toxicity — Single Exposure — Category 3. (respiratory system). (central nervous system).

Hazard Description..... H225 Highly flammable liquid and vapour. H317 May cause an allergic skin reaction. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

Prevention..... 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. 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. P284 In case of inadequate ventilation wear respiratory 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. P304 + P340 - If inhaled remove person to fresh air and keep comfortable for breathing. P342 + P311 If experiencing respiratory symptoms; call poison center or doctor. 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.

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.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Homopolymer of HDI	28182-81-2	40-70
tert-Butyl acetate	540-88-5	10-30
N-Butyl Acetate	123-86-4	7-13
2-Butoxyethyl Acetate	112-07-2	1-5
Hexamethylene -1,6-Diisocyanate	822-06-0	0.1-1

<<The actual concentration(s) withheld as a trade secret>> .

PRODUCT: RC-IA0010 Activator 2K Urethane Base**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. Check for and remove any contact lenses, if safe and easy to do so. Consult a physician if irritation continues.
Skin contact.....	Immediately remove all contaminated clothing; flush skin with water for at least 15 minutes. 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.....	Rinse mouth with water. Give 1 to 2 glasses of water to drink. 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. The main hazard from ingestion is aspiration of the liquid into the lungs.
Most important symptoms and effects, whether acute or delayed	Harmful if swallowed, in contact with skin or if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. High vapour concentrations may be irritating to the respiratory tract. May cause mild skin irritation. May cause slight eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation.
Additional information.....	Treat victims symptomatically. Skin: this compound is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn. 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 all cases, if irritation persists seek medical attention. 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 and unsuitable extinguishing media	Dry chemical. Carbon dioxide. Foam. In cases of larger fires, water spray should be used. Do not use water in a jet.
Specific hazards arising from the hazardous product, such as the nature of any hazardous combustion products	Flammable liquid. Oxides of carbon (CO, CO ₂). Oxides of nitrogen. Hydrogen cyanide. Isocyanates. Isocyanic acid. Dense black smoke. Other potentially toxic fumes.
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. 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. Cool fire-exposed containers with cold water spray. Heat will cause pressure buildup and may cause explosive rupture.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Isolate area and keep unauthorized people away. Do not walk through spilled material. Wear recommended protective equipment. Ventilate. Open windows and doors to allow air circulation. Dike area to prevent spreading. The use of absorbent socks or spill pillows may be required. Stop leak if safe to do so. Prevent runoff into drains, sewers, and other waterways. Use non-sparking tools and equipment to pick up the spilled material.
Methods and materials for containment . and cleaning up	Decontaminate spill area with decontamination solution. Area can then be washed with soap and water. 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. If temporary control of isocyanate vapour is required, a blanket of protein foam may be placed over spill. 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.....	Keep away from heat, sparks, and open flame. Ground handling equipment. Always adopt precautionary measures against build-up of static which may arise from appliances, handling and the containers in which product is packed. Avoid skin and eye contact. Avoid breathing vapours or mist. Use adequate ventilation. Wear respiratory protection if material is heated, sprayed, used in confined space, or if exposure limit is exceeded. Keep container closed when not in use. Handle and open container with care. Employees should wash hands and face before eating or drinking.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry and well ventilated area. Keep away from heat, sparks, and open flames. Store in tightly closed containers to prevent moisture contamination.

PRODUCT: RC-IA0010 Activator 2K Urethane Base**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL NIOSH
Homopolymer of HDI	5 mg/m3	Not established	5 mg/m3	Not established	5 mg/m3
tert-Butyl acetate	200 ppm	Not established	200 ppm	Not established	200 ppm
N-Butyl Acetate	150 ppm	200 ppm	150 ppm	200 ppm	150 ppm / STEL 200 ppm
2-Butoxyethyl Acetate	20 ppm TLV	Not established	Not established	Not established	5 ppm
Hexamethylene -1,6-Diisocyanate	0.005 ppm	Not established	Not established	Not established	0.005 ppm
Appropriate engineering controls.....	Ventilate adequately. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination. Vent work area to ensure airborne concentrations are below the current occupational exposure limits. Avoid breathing mists; if general ventilation or local exhaust is inadequate, persons exposed to mists should wear approved breathing devices. Explosion-proof exhaust ventilation.				
Personal protective equipment					
Eye/type.....	Chemical safety goggles and full faceshield if a splash hazard exists. Contact lenses should not be worn when working with this chemical.				
Gloves/ type.....	Chemical resistant gloves. Practice good hygiene, wash thoroughly before handling any food.				
Clothing/type.....	Wear adequate protective clothes. Wear long sleeves and trousers to prevent dermal exposure.				
Footwear/type.....	Safety boots per local regulations.				
Respiratory/type.....	Be sure to use NIOSH approved respirator or equipment. Do not exceed the use limits of the respirator. Combination filter for gases/vapours; (f.e. EN 14387 Type A-P2). The use of a positive pressure air supplied respirator is mandatory when airborne concentrations are not known or airborne solvent levels are 10 times the appropriate exposure limit or spraying is performed in a confined space or with limited ventilation.				
Other/type.....	Eye wash facility and emergency shower should be in close proximity. Emergency showers and eye wash stations should be available.				
Monitoring.....	Exposure levels must be monitored by accepted monitoring techniques to ensure that the TLV is not exceeded.				
Medical surveillance.....	Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent 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.				

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical state.....	Liquid.
Colour.....	Pale yellow.
Odour.....	Characteristic odour.
Odour threshold (ppm).....	Not available.
pH.....	No data.
Melting / Freezing point (deg C).....	< -60 C.
Initial boiling point / boiling range (deg C).....	>98 C.
Flash point (deg C), method.....	4. (estimate; lowest flash point ingredient).
Evaporation rate.....	Not available.
Upper flammable limit (% vol).....	8.5.
Lower flammable limit (% vol).....	0.9.
Vapour pressure (mm Hg).....	< 41.5 mmHg.
Vapour density (air=1).....	No data.
Relative Density (Specific Gravity).....	1.062.
Pounds / USG.....	8.86. lbs/USG.
Solubility.....	Insoluble. Reacts slowly with water to liberate CO2 gas.
Coefficient of water/oil distribution.....	Not available.
Auto ignition temperature (deg C).....	340°C .
Decomposition temperature.....	Not available.
Viscosity.....	No data.
VOC.....	159 g/l - 1.33 lb/USG.
% Volatile by volume.....	36.44.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Avoid heat, sparks and flames. Contact with moisture and other materials will react with isocyanates. Reacts slowly with water, forming carbon dioxide.
Chemical stability.....	Stable at normal temperatures and pressures.

PRODUCT: RC-IA0010 Activator 2K Urethane Base**SECTION 10: STABILITY AND REACTIVITY**

Possibility of hazardous reactions.....	Rapid polymerization will occur in the presence of water, amines, alkalis, and alcohol. Avoid skin contact. Reacts with substances which contain active hydrogen.
Conditions to avoid, including static discharge, shock or vibration	Avoid heat, spark, open flames.
Incompatible materials.....	Water, Amines, Strong bases, Alcohols, Copper alloys. Reacts with substances which contain active hydrogen.
Hazardous decomposition products.....	See hazardous combustion products section 5. The formation of gaseous decomposition products builds up pressure in tightly closed containers.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Homopolymer of HDI	390-453 mg/m3 rat 4 hours	> 5,000 mg/kg rat oral; > 5,000 mg/kg rabbit dermal
tert-Butyl acetate	>2,230 mg/m3 4 hours rat	4,100 mg/kg rat oral >2,000 mg/kg rabbit dermal
N-Butyl Acetate	>29.2 mg/L 4 hour rat >23.4 mg/L aerosol 4 hour rat	>3200 mg/kg rat oral >5000 mg/kg rabbit dermal
2-Butoxyethyl Acetate	> 450 ppm rat 6h	1,600 mg/kg rat oral 1,480 mg/kg rabbit dermal
Hexamethylene -1,6-Diisocyanate	22 ppm 4 hours rat	738 mg/kg rat oral 593 mg/kg rabbit dermal
Acute Toxicity Estimate.....	ATE mix (oral): . >2800 mg/kg . ATE mix (dermal):. >2200 mg/kg.	
Route of exposure.....	Eye contact. Skin contact. Inhalation. Skin absorption.	
Effects of acute exposure.....	Hazardous in contact with skin, by ingestion, and by inhalation. May be irritating to the eyes and skin. May be harmful if absorbed through the skin. Breathing of high vapour concentrations may cause anesthetic effects and serious health effects.	
Effects of chronic exposure.....	Reports have associated repeated or prolonged overexposure to solvents with permanent brain and nervous system damage. As a result of previous repeated overexposure or a single large dose, certain individuals develop sensitization which will cause them to react to a later exposure to product at levels well below the exposure limit. Sensitization can be permanent.	
Skin absorption.....	May be harmful if absorbed through the skin.	
Sensitizing capability of material.....	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.	
Carcinogenicity of material.....	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC or ACGIH.	
Reproductive effects.....	No data on reproductive effects were found in the literature sources consulted.	
Mutagenicity.....	The data does not allow for an adequate assessment of the mutagenic effect.	
Specific Target Organ Toxicity	May cause respiratory irritation. May cause drowsiness or dizziness.	

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 II - 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 II - Ltd Qty (1 litre). Refer to 49CFR 172.101 for additional non-bulk packaging requirements.
IATA Classification (Air).....	UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II. Limited Quantity. Do not ship by air without checking appropriate IATA regulations.
IMDG Classification (Marine).....	UN1263 - PAINT- Class 3 - Packing Group II - EmS: F-E S-E. Limited Quantity. Check IMDG regulations for limited quantity exemptions.
Marine Pollutant.....	No.
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. .

PRODUCT: RC-IA0010 Activator 2K Urethane Base**SECTION 15: REGULATORY INFORMATION**

CEPA status.....	Contains ingredient(s) not on the DSL.
TSCA inventory status.....	All components are listed.
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.....	None above De minimus % limit.
EPA hazardous air pollutants (HAPS)	Hexamethylene diisocyanate. Methanol.
40CFR63	
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). For more information, go to www.P65Warnings.ca.gov .

SECTION 16: OTHER INFORMATION

Prepared by:	REGULATORY AFFAIRS. Trivalent Data Systems Ltd. www.trivalent.com .
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 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.
Date of the latest revision of the safety data sheet ..	APR 12/2019