

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

13076 2K URETHANE PRIMER SURFACER ACTIVATOR 2.1 V.O.C. PRODUCT:

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..... 13076 2K URETHANE PRIMER SURFACER ACTIVATOR 2.1 V.O.C.

Recommended use and restrictions on ...

Paints. Accelerator and activator.

Chemical family..... NFPA rating.....

Health: 2 Fire: 4 Reactivity: 1.

HMIS..... 24 hour emergency number:.... H: 2 F: 4 R: 1. 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 WordHazard Classification	Flammable Liquid 2. Skin Sensitizer — Category 1. Acute Toxicity (Inhalation) — Category 4. Specific Target Organ Toxicity — Single Exposure — Category 3. (respiratory
Hazard Description	system). (narcotic effects). H225 Highly flammable liquid and vapour. H317 May cause an allergic skin reaction. H332 Harmful 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
Response	protection. P303 + P361 + P353 If on skin or in hair: take off all contaminated clothing immediately. Rinse thoroughly with water and use safety shower . P370 + P378 In case of fire - use dry chemical powder, CO2 or foam to extinguish. 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.
Storage	P233 Keep container tightly closed. P403 + P235 Store in well ventilated area. Keep cool. P405 Store locked up.
Disposal Note	P501 Dispose all unused, waste or empty containers in accordance with local regulations. This product mixture has been classified based on its ingredients.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS			
CHEMICAL NAME AND SYNONYMS	CAS#	WT. %	
tert-Butyl acetate	540-88-5	60-80	
Homopolymer of HDI	28182-81-2	15-40	

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

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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.
Skin contact	Obtain medical attention. Immediately flush skin with plenty of soap and water. Remove contaminated clothing. 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
Ingestion	difficult, give oxygen, obtain medical attention. Do not induce vomiting. Rinse mouth with water. If ingestion is suspected, contact physician or poison control center immediately. 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	
	respiratory tract. Can cause central nervous system depression. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
Additional information	Treat victims symptomatically. In all cases, if irritation persists seek medical attention. Skin: this compound is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn. 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	Dry chemical. Carbon dioxide. Foam. In cases of larger fires, water spray should be used.
media	Do not use water in a jet.
Specific hazards arising from the	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. This hazardous product, such as the nature of material may produce a floating fire hazard. Thermal decomposition products are toxic. May include:. Oxides of carbon (CO, CO2). Smoke. Other potentially toxic fumes. Under hot acidic conditions:. Isobutylene. Acetic acid. Thermal decomposition may release

isocyanate vapors.

Special protective equipment and precautions for fire-fighters

any hazardous combustion products

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

No action shall be taken involving any personal risk or without suitable training. Isolate area Personal precautions, protective equipment and emergency procedures

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. Take precautions against static discharge. Equipment should be grounded.

Methods and materials for containment and cleaning up Leak/spill.....

Ventilate. Eliminate all sources of ignition. Avoid all personal contact. Evacuate all non-essential personnel. Contain the spill. Prevent runoff into drains, sewers, and other waterways. Absorb with earth, sand, or another dry inert material. 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.

SECTION 07: HANDLING AND STORAGE

types of rubber, plastics and coatings.

Precautions for safe handling..... Employee education and training are important. Use adequate ventilation. Do not breathe

vapours, mist or dust. Wear respiratory protection if material is heated, sprayed, used in confined space, or if exposure limit is exceeded. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed vapour or spray mist. Prevent accumulation of electrostatic charges. Ensure that equipment is properly bonded and grounded during filling and transferring as product may become electrostatically charged. Avoid skin and eye contact. Wash thoroughly after handling. Store in a cool and dry place, for product integrity. Keep away from heat, sparks, and open flames. Store in tightly closed containers to prevent moisture contamination. Attacks some

Conditions for safe storage, including any incompatibilities



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SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	TWA	CGIH TLV STEL	PEL	OSHA PEL STEL	NIOSH REL
tert-Butyl acetate	200 ppm CA ON AB BC: 5	Not established 0ppm (TWA), 200ppm (STE	200 ppm EL)	Not established	200 ppm
Homopolymer of HDI	5 mg/m3	Not established	5 mg/m3	Not established	5 mg/m3
	Supplier: 0.5 mg/	m3 (TWA)			
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. Chemical safety goggles and full faceshield if a splash hazard exists.			
Eye/typeGloves/ type		Wear skin protection equip the nature of the work to b	oment. The sele be performed. Toplier for recomi	ection of skin protection equip The following gloves are recormendations. Practice good hy	nmended :. Butvl
Respiratory/type		recommended. Whenever not known, respiratory pro equipped with an organic of of a positive pressure air s are not known or airborne	concentrations tection must be vapour cartridge supplied respira- solvent levels a	or or a self-contained breathin of isocyanates exceed the exceedance and particulate pre-filters mitter is mandatory when airborrare 10 times the appropriate exceedance or with limited ventilation. Do	posure limit or are grespirator ast be worn. The use concentrations xposure limit or
Clothing/type			clothes. Wear i	mpervious protective clothing	
Footwear/type Other/type		Safety boots per local regular Emergency showers and e	ulations. eve wash statio	ns should be available. Educa	
Medical surveillance		recommended. These sho with pulmonary function te conditions, chronic bronch or sensitization should be diagnosed as sensitized to	employees who ould include pre est (FEC, FVC a itis, other chron excluded from o an isocyanate	or the product. In handle or come in contact we employment and periodic meals a minimum). Persons with hic respiratory diseases or reconstruction working with isocyanates. Or no further exposure can be procyanate, no further exposure.	dical examinations asthmatic-type urring skin eczema ice a person is permitted. Once a

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical state	Liquid.
Colour	Clear to pale yellow.
Odour threshold (ppm)	Camphor-like. Not available.
PH	Not applicable.
Melting / Freezing point (deg C)	< -58 C.
Initial boiling point / boiling range (deg C).	> 98 °C.
Flash point (deg C), method	4 °C. (estimate; lowest flash point ingredient).
Evaporation rate	No data.
Flammability (solids and gases)	Not applicable. Flammable liquid.
Upper flammable limit (% vol)	6.9.
Lower flammable limit (% vol)	1.2.
Vapour pressure (mm Hg)	Not available.
Vapour density (air=1)	No data.
Relative Density (Specific Gravity)	0.951.
Pounds / USG	7.94.
Solubility	Reacts slowly with water to liberate CO2 gas.
Partition coefficient — n-octanol/water	No data.
Auto ignition temperature (deg C)	438.
Decomposition temperature	No data.
Viscosity	13" Zahn #2.
% Volatile by volume	0.0.
VOC (less water)	0.0.

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SECTION 10: STABILITY AND REACTIVITY

Product is stable; hazardous polymerization will not occur.

Stable at normal temperatures and pressures.

Reacts with; Alcohols. Amines. substances which contain active hydrogen. Reacts with water, with formation of carbon dioxide. Possibility of hazardous reactions.....

Avoid heat, spark, open flames. Moisture.

Conditions to avoid, including static discharge, shock or vibration

Incompatible materails.....Hazardous decomposition products..... Strong oxidizing agents. Acids. Alkalies. Nitrates. Plastics. Water. Alcohols. Amines. No hazardous decomposition products when stored and handled correctly. Under hot

acidic conditions:. Isobutylene and acetic acid.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
tert-Butyl acetate	>2,230 mg/m3 4 hours rat	4,100 mg/kg (rat, oral); >2,000 mg/kg (rabbit, dermal)
Homopolymer of HDI	390-453 mg/m3 rat 4 hours	> 5,000 mg/kg (rat, oral); > 5,000 mg/kg (rabbit, dermal)

Route of exposure..... Symptoms related to the physical, chemical and toxicological characteristics Effects of acute exposure.....

Eye contact. Skin contact. Inhalation.

Can be irritating to eyes and skin. May cause sensitization by skin contact. Harmful if swallowed. Harmful if inhaled. Inhalation may cause respiratory tract irritation. Inhalation of vapours or mist may cause drowsiness or dizziness. The substance may cause sensitization of the respiratory tract. Isocyanate vapour/mists at concentrations above the exposure limits can irritate (burning sensation) the mucous membranes in the respiratory tract. This can cause a runny nose, sore throat, coughing, chest discomfort, difficult breathing and reduced pulmonary functioning. Persons with pre-existing, nonspecific bronchial hyperreactivity can respond to concentrations below the TLV with similar symptoms, as well as asthma attack. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema. Chemical or hypersensitive pneumonitis, with flu-like symptoms has also been reported. These symptoms can be delayed up to several hours after exposure. Effects are usually reversible. May cause central nervous system effects such as headache, nausea, vomiting and weakness. Prolonged or repeated exposure may cause lung damage, including a decrease in lung

Effects of chronic exposure..... function. Prolonged skin contact may cause reddening, swelling, rash, scaling, blistering, and in some cases, sensitization. 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. Intentional misuse by deliberately concentrating and inhaling this product may

be harmful or fatal.

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 drowsiness or dizziness. May cause respiratory irritation.

Acute Toxicity Estimate (ATE)..... ATE mix (oral): . >4000 mg/kg.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity..... Product data 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.

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. UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II - Ltd Qty (1 litre). DOT Classification (Road)..... Refer to 49CRF 172.101 for additional non-bulk packaging requirements.
UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II. Limited Quantity. IATA Classification (Air)..... Do not ship by air without checking appropriate IATA regulations.



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SECTION 14: TRANSPORT INFORMATION

UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II - EmS: F-E S-E. IMDG Classification (Marine).....

Limited Quantity. Check IMDG regulations for limited quantity exemptions.

Marine Pollutant.....Proof of Classification..... No.

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

A component of this product is not on the NDSL. CEPA status.....

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 None.

substances

Immediate health, delayed health, fire hazard. Section 311/312 - hazard categories.......

Section 313.....

None above De minimus % limit.

EPA hazardous air pollutants (HAPS) 40CFR63

Hexamethylene diisocyanate. Methanol.

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.

For more information, go to www.P65Warnings.ca.gov.

SECTION 16: OTHER INFORMATION

Prepared by: REGULATORY AFFAIRS. Trivalent Data Systems Ltd. www.trivalent.com.

(800) 387-7981. Telephone number:.....

DISCLAIMER: All information appearing herein is based upon data obtained from Disclaimer:.... 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.

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

Date of the latest revision of the safety ...

data sheet

2020-05-13