Plastique Royal
2809 Rue Etienne Lenoir
Laval, H7R 6J4
QC

PRODUCT: FUS 26LV SLOW ACTIVATOR

Section 01: Chemical product and company identification

Product name	FUS 26LV SLOW ACTIVATOR
Manufactured for	Plastique Royal Inc., 2809 Rue Etienne-Lenoir Laval, QC H7R 6J4
24 hour emergency number:	IN CANADA CALL CANUTEC (613) 996-6666-IN THE UNITED STATES CALL CHEMTREC (800) 424-9300.
Material use	Paints. Accelerator and activator. This product should not be used for any other purpose other than the ones described in this section.
Chemical family	Mixture.
Preparation date	December 17, 2014.
Hazard rate	
NFPA rating	Health: 2 Fire: 3 Reactivity: 0.
HMIS	H: 2 F: 3 R: 0.

Section 02: Hazards identification

Signal Word	DANGER.
Hazard Classification	Flammable Liquid 2. Skin Irritant 2. Skin Sensitizer 1. Eye Irritant 2. Respiratory Sensitizer 1A. STOT SE 3. Carcinogen 2. Reproductive 2.
Hazard Description	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H351 This product contains ingredients that are suspected of causing cancer. H361 This product contains ingredients that are suspected of damaging fertility or the unborn child.
Precautionary Statements	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 hands 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. P284 In case of inadequate ventilation wear respiratory protection.
Response	P302 + P352 - If on skin: wash with plenty of water. . 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. P305 + P351 + P338 If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing until medical help arrives. P308 + P313 If exposed or concerned, get medical advice/attention. P312 Call a poison center/doctor if you feel unwell. P321 - Consult with a doctor or poison control centre if skin is itchy or a skin rash develops or you feel unwell. P332 + P313 - If skin irritation occurs get medical attention or advice. P333 + P313 If skin irritation or rash occurs, medical advice/attention. P337 + P313 - If eye irritation persists get medical attention. P342 + P311 If experiencing respiratory symptoms; call poison center or doctor. P362 + P364 - Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire - use dry chemical powder, CO2 or 6% foam.
Storage	P403 + P233 Store in a well ventilated area. 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.

Section 03: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS #	Wt. %
HOMOPOLYMER OF HDI	28182-81-2	10-30

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Section 03: COMPOSITION/INFORMATION ON INGREDIENTS

4-CHLOROBENZOTRIFLUORIDE	98-56-6	10-20
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	112-07-2	10-20
ACETIC ACID, TERT-BUTYL ESTER	540-88-5	7-13
HOMOPOLYMER OF IPDI	53880-05-0	7-13
ETHYL 3-ETHOXYPROPIONATE	763-69-9	3-7
SOLVENT NAPHTHA, LIGHT AROMATICS	64742-95-6	3-7
N-AMYL ACETATE	628-63-7	3-7
METHYL ISOBUTYL KETONE	108-10-1	3-7
N-BUTYL ACETATE	123-86-4	3-7
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	1-5
DIISOBUTYL KETONE	108-83-8	0.5-5
PROPYL BENZENE	103-65-1	0.5-5
ISOPHORONE DIISOCYANATE	4098-71-9	0.1-1.0
HEXAMETHYLENE DIISOCYANATE	822-06-0	0.1-1.0

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. Obtain medical attention.

Skin contact..... If irritation persists, seek medical attention. Immediately flush skin with plenty of soap and water. Remove contaminated clothing. Wash clothing before reuse.

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. 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. Rinse mouth with water. Do not induce vomiting.

Additional information..... In all cases, if irritation persists seek medical attention. 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. Skin: this compound is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn. Ingestion: treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of this compound. 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.

Section 05: Fire fighting measures

Extinguishing media..... Dry chemical. Carbon dioxide. Foam. In cases of larger fires, water spray should be used.

Hazardous combustion products..... Oxides of carbon (CO, CO2). Oxides of nitrogen. Smoke. Hydrogen cyanide. Isocyanates. Other potentially toxic fumes.

Special fire fighting procedures..... 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

Leak/spill..... Ventilate. Eliminate all sources of ignition. Contain the spill. Avoid all personal contact. 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. Evacuate all non-essential personnel. Prevent runoff into drains, sewers, and other waterways. Absorb with earth, sand, or another dry inert material. Shovel into suitable unsealed containers, transport to well-ventilated area (outside) and treat with neutralizing solution: mixture of water (80%) with non-ionic surfactant Tergitol TMN-10 (20%); or water (90%), concentrated ammonia (3-8%) and detergent (2%).

Major spills..... If temporary control of isocyanate vapour is required, a blanket of protein foam may be placed over spill. If transportation spill occurs in United States, call Chemtrec 1-800-424-9300. If transportation spill occurs in Canada, call Canutec at (613) 996-6666. Large quantities may be pumped into closed, but not sealed, containers for disposal.

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Section 06: Accidental release measures

Minor spills..... Absorb isocyanates with sawdust or other absorbent. Pour decontamination solution over spill area and allow to react for at least 10 minutes. Shovel into suitable containers and add further amounts of decontamination solution. Add about 10 parts of decontamination solution per part of isocyanate. Decontamination solution:. Decontamination Solution: Mixture of water (80%) with non-ionic surfactant Tergitol TMN-10 (20%), or; water (90%), concentrated ammonia (3-8%) and detergent (2%). Allow to stand uncovered for 72 hours to let carbon dioxide escape.

Clean up..... Decontaminate floor with decontamination solution, letting stand for at least 15 minutes.

Section 07: Handling and storage

Handling procedures..... Do not breathe vapours, mist or dust. Use adequate ventilation. Wear respiratory protection if material is heated, sprayed, used in confined space, or if exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odour) are not adequate to prevent chronic overexposure from inhalation. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed vapour or spray mist. Avoid skin and eye contact. Wash thoroughly after handling. Decomposition products are highly toxic and irritating. Ensure that equipment is properly bonded and grounded during filling and transferring as product may become electrostatically charged. Employee education and training are important.

Storage needs..... Storage temperature min/max 34-50C. Store in tightly closed containers to prevent moisture contamination. Keep away from heat, sparks, and open flames. Do not reseal if contamination is suspected. Exposure to vapours of heated isocyanates can be extremely dangerous.

Section 08: Exposure controls / personal protection

Ingredients	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL PEL	OSHA PEL STEL	NIOSH REL
HOMOPOLYMER OF HDI	5 mg/m3	Not established	5 mg/m3	Not established	5 mg/m3
	No data				
4-CHLOROBENZOTRIFLUORIDE	Not established	Not established	Not established	Not established	Not established
	No data				
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	Not established	Not established	Not established	Not established	Not established
	20 ppm				
ACETIC ACID, TERT-BUTYL ESTER	200 ppm	Not established	200 ppm	Not established	200 ppm
	200 ppm				
HOMOPOLYMER OF IPDI	Not established	Not established	Not established	Not established	Not established
	No data				
ETHYL 3-ETHOXYPROPIONATE	Not established	Not established	Not established	Not established	Not established
	No data				
SOLVENT NAPHTHA, LIGHT AROMATICS	Not established	Not established	Not established	Not established	Not established
	No data				
N-AMYL ACETATE	50 ppm/15 minutes	100 ppm	100 ppm	Not established	100 ppm
	No data				
METHYL ISOBUTYL KETONE	50 ppm	75 ppm	100 ppm	Not established	50 ppm / STEL 75 ppm
	50 ppm ACGIH TWA				
N-BUTYL ACETATE	150 ppm	200 ppm	150 ppm	200 ppm	150 ppm / STEL 200 ppm
	No data				
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	Not established	Not established	Not established	Not established	Not established

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Section 08: Exposure controls / personal protection

Ingredients	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL PEL	OSHA PEL STEL	NIOSH REL
	No data				
DIISOBUTYL KETONE	25 ppm	Not established	50 ppm	Not established	25 ppm
	No data				
PROPYL BENZENE	Not established	Not established	Not established	Not established	Not established
	No data				
ISOPHORONE DIISOCYANATE	0.005 ppm	Not established	Not established	Not established	0.005 ppm skin
	No data				
HEXAMETHYLENE DIISOCYANATE	0.005 ppm	Not established	Not established	Not established	0.005 ppm
	0.005 ppm				

Protective equipment

Eye/type..... Liquid chemical goggles. Contact lenses should not be worn when working with this chemical.

Respiratory/type..... Whenever concentrations of isocyanates exceed the exposure limit or are not known, respiratory protection must be worn. A positive pressure, supplied-air respirator or a self-contained breathing apparatus is recommended. At least an air-purifying respirator equipped with an organic vapour cartridge and particulate pre-filters must be worn. However, this should be permitted only for short periods of time (< 1 hour) at relatively low concentrations (at or near the exposure limit). 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. Do not exceed the use limits of the respirator.

Gloves/ type..... Chemical resistant gloves. Butyl rubber. Neoprene. Nitrile rubber. Practice good hygiene, wash thoroughly before handling any food.

Clothing/type..... Wear adequate protective clothes. Wear impervious protective clothing.

Footwear/type..... Safety boots per local regulations.

Other/type..... Emergency showers and eye wash stations should be available. Educate and train employees on the safe use and handling of the product.

Ventilation requirements..... 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. .

Exposure limits

Section 09: Physical and chemical properties

Physical state..... Liquid.
Colour..... Light yellow.
Odour..... Ketone odour.
Odour threshold (ppm)..... No data.
Vapour pressure (mm Hg)..... No data.
Vapour density (air=1)..... >1.
pH..... Not applicable.
Specific gravity..... 8.93 lb/usg - 1.07 g/mL.
Freezing point (deg C)..... -40°C.
Solubility..... Slightly soluble in water.
Boiling point (deg C)..... 98°C .
Evaporation rate..... Moderate.
Flash point (deg C), method..... 14°C Closed Cup.
Auto ignition temperature (deg C)..... 272°C .
Upper flammable limit (% vol)..... 9.8.
Lower flammable limit (% vol)..... 0.8.
Coefficient of water\oil distribution..... No data.
% Volatile by volume..... 59.
VOC..... 1.96 lb/usg - 234.86 g/L.
Viscosity..... 14.2 sec Zahn #2.

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Section 10: Stability and reactivity

Stability..... Stable at normal temperatures and pressures.
Reactivity conditions..... Avoid heat, sparks and flames. Explosive reactions can occur in the presence of strong oxidizing agents.
Incompatibility..... Water, amines, strong bases, alcohols. Copper alloys.
Hazardous products of decomposition..... See hazardous combustion products.
Hazardous polymerization..... Contact with moisture or other materials that react with isocyanates may cause polymerization.

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
4-CHLOROBENZOTRIFLUORIDE	4479 ppm	>6,800 mg/kg rat oral; >2,700 mg/kg rabbit dermal
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	> 450 ppm rat 6h	1,600 mg/kg rat oral; 1,480 mg/kg rabbit dermal
ACETIC ACID, TERT-BUTYL ESTER	>2,230 mg/m3 4 hours rat	4,100 mg/kg rat oral >2,000 mg/kg rabbit dermal
HOMOPOLYMER OF IPDI	No data	No data
ETHYL 3-ETHOXYPROPIONATE	>998 ppm 6 hours	4,309 mg/kg rat oral 4,080 mg/kg rabbit dermal
SOLVENT NAPHTHA, LIGHT AROMATICS	5.2 mg/L 4 hours rat	>5,000 mg/kg rat oral >3,160 mg/kg rabbit dermal
N-AMYL ACETATE	>976 ppm 4 hours rat	6500 mg/kg rat oral 8359 mg/kg rabbit dermal
METHYL ISOBUTYL KETONE	8.2 - 16.4 mg/L 4 hours rat	2080 mg/kg rat oral >16,000 mg/kg rabbit dermal
N-BUTYL ACETATE	1.36 - 2.38 mg/L 4 hours rat	>3200 mg/kg rat oral >5000 mg/kg rabbit dermal
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	No data	8,532 mg/kg rat oral >5,000 mg/kg rabbit dermal
DIISOBUTYL KETONE	>2,300 ppm 4 hours	5,285 mg/kg rat oral >2,000 mg/kg rat dermal
PROPYL BENZENE	No data	6,040 mg/kg rat oral
ISOPHORONE DIISOCYANATE	123 mg/m3 4 hours rat	>1,000 mg/kg rat oral 1,060 mg/kg rat dermal
HEXAMETHYLENE DIISOCYANATE	22 ppm 4 hours rat	738 mg/kg rat oral 593 mg/kg rabbit dermal

Route of entry ..... Eye contact. Skin contact. Inhalation.
Effects of chronic exposure..... 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. Symptoms including chest tightness, wheezing, cough, shortness of breath or asthma attack, could be immediate or delayed. There are reports that once sensitized, an individual can experience these symptoms upon exposure to dust, cold air or other irritants. This increased lung sensitivity can persist for weeks and, in severe cases, for several years. Sensitization can be permanent. Prolonged or repeated exposure may cause lung damage, including a decrease in lung function. Prolonged vapour contact may cause conjunctivitis. Prolonged skin contact may cause reddening, swelling, rash, scaling, blistering, and in some cases, sensitization. Chronic exposure to organic solvents may cause permanent brain and nervous system damage.
Skin contact..... Causes skin irritation. Causes reddening, stinging and swelling. Persons previously sensitized can experience allergic reaction with symptoms of reddening, itching, swelling and rash. Cured product is difficult to remove.
Skin absorption..... Not available.
Eye contact..... Causes eye irritation. Can cause tearing, reddening and swelling. May cause temporary corneal damage. Vapours can produce irritation. Symtoms include tearing and reddening.
Inhalation (acute)..... 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. Causes runny nose, sore throat, coughing, chest discomfort, difficult breathing and reduced pulmonary functioning. Persons with preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the exposure limit with similar symptoms as well as asthma attack. Exposure well above the exposure limit 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. Solvent vapours may be irritating to the eyes, nose and throat, resulting in redness, burning and itching of eyes, dryness of the throat and tightness in the chest. Breathing of high vapour concentrations may cause anesthetic effects and serious health effects. Excessive inhalation of vapours can cause respiratory irritation, dizziness, headache, nausea and asphyxiation.

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Section 11: Toxicological information

Ingestion	May be harmful or fatal if swallowed. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal. May cause central nervous system effects such as headache, nausea, vomiting and weakness.
Carcinogenicity of material	Methyl isobutyl ketone is known to the state of California to cause cancer and developmental effects.
Reproductive effects	Methyl Isobutyl Ketone is known by the State of California to cause adverse fetal developmental effects.

Toxicological Data

Section 12: Ecological information

Environmental	Do not allow to enter waters, waste water or soil.
Biodegradability	No data.

Section 13: Disposal considerations

Waste disposal	Dispose of waste in accordance with all applicable Federal, Provincial/State and local regulations.

Section 14: Transport information

TDG Classification (Road)	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 (5 Liters/1.3 Gallons).
IATA Classification (Air)	UN1263 - Paint Related Material - Class 3 - Packing Group II.
IMDG Classification (Marine)	UN1263 - Paint Related Material - Class 3 - Packing Group II - EmS: F-E S-E.
Marine Pollutant	Potential marine pollutant.
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

WHMIS classification	B2. D2A. D2B.
CEPA status	On Domestic Substances List (DSL).
OSHA	This product is considered hazardous under the OSHA Hazard Communication Standard.
SARA Title III	
Section 302 - extremely hazardous substances	Isophorone Diisocyanate TPQ 100.
Section 311/312 - hazard categories	Immediate health, delayed health, fire hazard.
Section 313	Methyl Isobutyl Ketone. Isophorone Diisocyanate. Hexamethylene diisocyanate.
EPA hazardous air pollutants (HAPS) 40CFR63	Methyl Isobutyl Ketone. Hexamethylene diisocyanate. Ethyl acetate.
TSCA inventory status	All components are listed.
California Proposition 65	This product contains Methyl Isobutyl Ketone (MIBK) known to the State of California to cause cancer.

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 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.
Preparation date:	Dec17/14