

1. Identification of the substance/preparation and of the company/undertaking

Supplier: Dupont Canada.
P.O. Box 2200
Streetsville, Mississauga, ON, L5M, 2H3

Manufacturer: E. I. du Pont de Nemours and Company.
DuPont Performance Coatings
Wilmington, DE 19898

Telephone: Product information: (800) 387-2122
Medical emergency: (800) 441-3637
Transportation emergency: (613) 996-6666 (CANUTEC)

Product Identifier: **Nason® Hardeners**

Product Use: Hardener for professional use

Hazardous Materials Information: See Section 16.

Products covered in this document include: 483-08, 483-11, 483-15, 483-30, 483-38, 483-52, 483-56, 483-57, 483-77, 483-78, 483-79

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2. Composition/information on ingredients

INGREDIENTS	GAS #	VAPOR PRESSURE	EXPOSURE LIMITS
1,2,4-trimethyl benzene	95-63-6	7.0@44.4 °C	A 25.0 ppm, O 25.0 ppm
1,3,5-trimethyl benzene	108-67-8	None	A 25.0 ppm, O None
1,6-hexamethylene diisocyanate	822-06-0	0.0@25.0 °C	A 5.0 ppb, O None
Aliphatic polyisocyanate resin	28182-81-2	None	S 1.0 mg/m3 15 min STEL, S 0.5 mg/m3, A None, O None
Aromatic hydrocarbon-A	64742-94-5	10.0	D 100.0 ppm, A None, O None
Aromatic hydrocarbon-B	64742-95-6	10.0@25.0 °C	D 50.0 ppm, A None, O None
Benzene, propyl-	103-65-1	None	A None, O None
Butyl acetate	123-86-4	10.0	A 200.0 ppm 15 min STEL, A 150.0 ppm, O 150.0 ppm
Ethyl 3-ethoxy propionate	763-69-9	2.0@25.0 °C	A None, O None
Ethylbenzene	100-41-4	7.0	A 125.0 ppm 15 min STEL, A 100.0 ppm, O 100.0 ppm, D 25.0 ppm 8 & 12 hour TWA
Ethylene glycol monobutyl ether acetate	112-07-2	0.3	A 20.0 ppm, D 20.0 ppm 8 & 12 hour TWA, O None
Isophorone diisocyanate	4098-71-9	None	A 5.0 ppb Skin, D 25.0 ppm 8 & 12 hour TWA, O None
Isophorone diisocyanate homopolymer	53880-05-0	None	A None, O None
Methyl isobutyl ketone	108-10-1	15.1	A 75.0 ppm 15 min STEL, A 50.0 ppm, O 100.0 ppm
N-pentyl propionate	624-54-4	1.5	A None, O None
Naphthalene	91-20-3	1.0@52.6 °C	A 15.0 ppm CEIL Skin, A 10.0 ppm Skin, O 10.0 ppm, D 0.1 ppm 8 & 12 hour TWA
P-toluenesulfonyl isocyanate	4083-64-1	0.0@50.0 °C	A None, O None
Propylene glycol monomethyl ether acetate	108-65-6	3.8	D 10.0 ppm 8 & 12 hour TWA, A None, O None
Toluene	108-88-3	22.0	A 20.0 ppm, O 300.0 ppm CEIL, O 500.0 ppm 10 min TWA, O 200.0 ppm, D 50.0 ppm 8 & 12 hour TWA Skin
Xylene	1330-20-7	8.0@25.0 °C	A 150.0 ppm 15 min STEL, A 100.0 ppm, O 100.0 ppm, D 150.0 ppm 15 min STEL, D 100.0 ppm 8 & 12 hour TWA

*A=ACGIH, O=OSHA, D=DuPont, S=Suppliers. Limits are 8 hour TWA unless otherwise specified. Vapor pressure @ 20° C unless otherwise noted.

3. Hazards identification

Potential Health Effects
Inhalation

May cause nose and throat irritation. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. If this product contains or is mixed with an isocyanate activator/hardener, the following health effects may apply: Exposure to isocyanates may cause respiratory sensitization. This effect may be permanent. Symptoms include an asthma-like reaction with shortness of breath, wheezing, cough or permanent lung sensitization. This effect may be delayed for several hours after exposure. Repeated overexposure to isocyanates may cause a decrease in lung function, which may be permanent. Individuals with lung or breathing problems or prior reactions to isocyanates must not be exposed to vapors or spray mist of this product.

Ingestion

May result in gastrointestinal distress.

Skin or eye contact:

May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.

Other Potential Health Effects in addition to those listed above:

Aliphatic polyisocyanate resin

Overexposure may cause asthma-like reactions with shortness of breath, wheezing, cough, which may be permanent; or permanent lung sensitization. This effect may be delayed for several hours after exposure. The following medical conditions may be aggravated by exposure: asthma, skin disorders, respiratory disorders. Potential skin sensitizer that may cause allergic reactions and contact dermatitis resulting in severe irritation, dryness, and cracking of the skin. Skin or eye contact may cause any of the following: irritation.

Aromatic hydrocarbon-A

Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

Aromatic hydrocarbon-B

The following medical conditions may be aggravated by exposure: skin disorders. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

Butyl acetate

May cause abnormal liver function. The following medical conditions may be aggravated by exposure: respiratory system. Tests for embryotoxic activity in animals has been inconclusive. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

Ethylbenzene

Is an IARC, NTP or OSHA carcinogen. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, lungs. Recurrent overexposure may result in liver and kidney injury. Studies in laboratory animals have shown reproductive, embryotoxic and developmental effects. **WARNING:** This chemical is known to the State of California to cause cancer.

Ethylene glycol monobutyl ether acetate

May destroy red blood cells. May cause abnormal kidney function. May cause temporary upper respiratory and/or lung irritation with cough, difficult breathing, or shortness of breath. The following medical conditions may be aggravated by exposure: central nervous system, gastrointestinal system, kidneys, liver, Dermatitis. Can be absorbed through the skin in harmful amounts. Overexposure may cause damage to any of the following organs/systems: blood, kidneys, liver. Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness.

Isophorone diisocyanate

Overexposure may cause damage to any of the following organs/systems: lungs, skin. The following medical conditions may be aggravated by overexposure: asthma, eczema, skin disorders, respiratory disorders.

Isophorone diisocyanate homopolymer

May cause temporary upper respiratory and/or lung irritation with cough, difficult breathing, or shortness of breath. Overexposure may cause asthma-like reactions with shortness of breath, wheezing, cough, which may be permanent; or permanent lung sensitization. This effect may be delayed for several hours after exposure. Repeated and prolonged overexposure may cause delayed effects involving the respiratory system. Repeated overexposure to isocyanates may cause lung injury, including a decrease in lung function, which may be permanent. Overexposure may cause damage to any of the following organs/systems: lungs, skin. The following medical conditions may be aggravated by overexposure: asthma, eye disease, eczema, skin disorders, respiratory disorders.

Methyl isobutyl ketone

The following medical conditions may be aggravated by exposure: asthma, Respiratory Disease, eye disease, pulmonary condition, skin disorders. Repeated or prolonged skin contact may cause: dryness, cracking of the skin, defatting. Inhalation may cause: dizziness, Causes stupor (central nervous system depression), Drowsiness, respiratory tract irritation.

Naphthalene

Is an IARC, NTP or OSHA carcinogen. Tests in some laboratory animals demonstrate carcinogenic activity. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: kidneys, liver. Recurrent overexposure may result in liver and kidney injury. **WARNING:** This chemical is known to the State of California to cause cancer.

P-toluenesulfonyl isocyanate

Overexposure may cause asthma-like reactions with shortness of breath, wheezing, cough, which may be permanent; or permanent lung sensitization. This effect may be delayed for several hours after exposure. The following medical conditions may be aggravated by exposure: asthma, skin disorders, respiratory disorders. Potential skin sensitizer that may cause allergic reactions and contact dermatitis resulting in severe irritation, dryness, and cracking of the skin. Skin or eye contact may cause any of the following: irritation.

Propylene glycol monomethyl ether acetate

Recurrent overexposure may result in liver and kidney injury.

Toluene

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, respiratory system, skin. Can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heart beats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

Xylene

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: bone marrow, cardiovascular system, central nervous system, kidneys, liver, lungs. Recurrent overexposure may result in liver and kidney injury. High exposures may produce irregular heart beats. Canada classifies Xylene as a developmental toxin as high exposures to xylenes in some animal studies have been reported to cause health effects on the developing fetus/embryo. These effects were often at levels toxic to the adult animal. The significance of these effects to humans is not known. Repeated or prolonged skin contact may cause: irritation, dryness, cracking of the skin.

4. First aid measures

First Aid Procedures:

Inhalation:

If affected by inhalation of vapor or spray mist, move to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing difficulty persists, or occurs later, consult a physician.

Ingestion:

In the unlikely event of ingestion, DO NOT INDUCE VOMITING. Call a physician immediately and have names of ingredients available.

Skin or eye contact:

In case of eye contact, immediately flush with plenty of water for at least 15 minutes; call a physician. In case of skin contact, wash thoroughly with soap and water. If irritation occurs, contact a physician.

5. Fire-fighting measures

Flash Point (Closed Cup):

See Section 16 for exact values.

Flammable Limits: LFL 0.5 % UFL 13.1 %

Extinguishing Media:

Universal aqueous film-forming foam, carbon dioxide, dry chemical.

Fire Fighting Procedures:

Full protective equipment, including self-contained breathing apparatus, is recommended. Water from fog nozzles may be used to prevent pressure build-up.

Fire and Explosion Hazards:

For flammable liquids, vapor/air will ignite when an ignition source is present. In other cases, when heated above the flash point, emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

6. Accidental release measures

Procedures for cleaning up spills or leaks:

Ventilate area. Remove sources of ignition. Prevent skin and eye contact and breathing of vapor. If material does not contain or is not mixed with an isocyanate activator/hardener: Wear a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH approved TC-23C), eye protection, gloves and protective clothing. Confine, remove with inert absorbent, and dispose of properly.

Ecological information

There is no data available on the product. The product should not be allowed to enter drains, water courses or the soil.

7. Handling and storage

Precautions to be taken in handling and storing:

Observe label precautions. If combustible (flashpoint between 38-93 deg C or 100 - 200 deg F), keep away from heat, sparks and flame. If flammable (flashpoint less than 38 deg C or 100 deg F), also keep away from static discharges and other sources of ignition. If material is extremely flammable (flashpoint less than - 8 deg C or 20 deg F) or flammable, VAPORS MAY IGNITE EXPLOSIVELY OR CAUSE FLASH FIRE, respectively. Vapors may spread long distances. Prevent buildup of vapors. Close container after each use. Ground containers when pouring. Wash thoroughly after handling and before eating or smoking. Do not store above 49 deg C or 120 deg F. If product is waterbased, do not freeze.

Other precautions:

If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation , and gloves.

8. Exposure controls/personal protection

Ventilation

Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits.

Respiratory protection

Do not breathe vapors or mists. Wear a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH approved TC-23C) and particulate filter (NIOSH TC-84A) during application and until all vapors and spray mists are exhausted. In confined spaces, or in situations where continuous spray operations are typical, or if proper air-purifying respirator fit is not possible, wear a positive pressure, supplied-air respirator (NIOSH TC-19C). In all cases, follow respirator manufacturer's directions for respirator use. Do not permit anyone without protection in the painting area.

Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

Skin and body protection

Neoprene gloves and coveralls are recommended.

Desirable in all industrial situations. Goggles are preferred to prevent eye irritation. If safety glasses are substituted, include splash guard or side shields.

9. Physical and chemical properties

Evaporation rate	Slower than Ether
Vapor pressure of principal solvent	12.5 hPa
Solubility of Solvent In Water	NIL
Vapour density	Heavier than air
Approx. Boiling Range (°C)	109 – 203 °C
Approx. Freezing Range (°C)	-98 – 0 °C
Density (g/l)	951 - 1,120
Specific Gravity	0.95 - 1.12
Percent Volatile By Volume	12.58 - 70.69
Percent Volatile By Weight	9.67 - 65.84
Percent Solids By Volume	29.31 - 87.42
Percent Solids By Weight	34.16 - 90.33
Appearance	liquid
Odour: characteristic of the Product	

10. Stability and reactivity

Stability:

Stable

Incompatibility (materials to avoid):

None reasonably foreseeable

Hazardous decomposition products:

CO, CO2, smoke, and oxides of any heavy metals that are reported in "Composition, Information on Ingredients" section.

Hazardous Polymerization:

Will not occur.

Sensitivity to Static Discharge:

For flammable materials (flashpoint less than 38 deg C or 100 deg F) and combustibles (flashpoint between 38- 93 deg C or 100-200 deg F) if heated above the flashpoint, solvent vapors in air may explode if static grounding and bonding is not used during transfer of this product.

Sensitivity to Mechanical Impact:

None known.

11. Toxicological information

Toxicity Test Type	Value	Time	Species	Source
1,2,4-trimethyl benzene				
Oral LD50	5,000 mg/kg		rat	RTECS
Inhalation LC50	18,000 mg/m3	4 h	rat	RTECS
1,3,5-trimethyl benzene				
Oral LD50	24,000 mg/kg		rat	RTECS
Inhalation LC50	24 mg/l	4 h	rat	RTECS
1,6-hexamethylene diisocyanate				
Oral LD50	350 mg/kg		mouse	RTECS
Dermal LD50	570 mg/kg		rabbit	Supplier MSDS
Inhalation LC50	124 mg/m3	4 h	rat	RTECS
Aliphatic polyisocyanate resin				
Oral LD50	1,000 mg/kg		rat	Supplier MSDS
Dermal LD50	5,000 mg/kg		rabbit	Supplier MSDS
Inhalation LC50	137 mg/m3	4 h	rat	Supplier MSDS
Aromatic hydrocarbon				
Oral LD50	13 ml/kg		rat	Supplier MSDS
Dermal LD50	> 2,000 mg/kg		rabbit	Supplier MSDS
Inhalation LC50	3,800 mg/m3	4 h	rat	Supplier MSDS
Inhalation LD50	> 580 ppm	4 h	rat	Supplier MSDS
Aromatic hydrocarbon				
Oral LD50	> 5,000 mg/kg		rat	CCOHS
Dermal LD50	> 3,160 mg/kg		rat	CCOHS
Inhalation LD50	> 3,670 ppm	4 h	rat	Supplier MSDS
Benzene, propyl-				
Oral LD50	6,040 mg/kg		rat	RTECS
Inhalation LD50	> 9,999 ppm	2 h	rat	RTECS
Butyl acetate				
Oral LD50	> 5,000 ml/kg		rat	Supplier MSDS
Dermal LD50	> 5,000 ml/kg		rabbit	Supplier MSDS
Inhalation LC50	> 6,335 ppm	4 h	rat	Supplier MSDS
Ethyl 3-ethoxy propionate				
Oral LD50	4.3 g/kg		Female Rat	Supplier MSDS
Dermal LD50	4.92 ml/kg		rat	Supplier MSDS
Inhalation LC50	> 1,000 ppm	6 h	rat	Supplier MSDS
Ethylbenzene				
Oral LD50	3,500 mg/kg		rat	RTECS
Dermal LD50	17.8 g/kg		rabbit	RTECS
Inhalation LC50	4,000 ppm	4 h	rat	Patty's
Ethylene glycol monobutyl ether acetate				
Oral LD50	2,400 mg/kg		rat	RTECS
Dermal LD50	1,500 mg/kg		rabbit	RTECS
Isophorone diisocyanate				
Oral LD50	4,825 mg/kg		rat	Supplier MSDS
Dermal LD50	> 7,000 mg/kg		rat	Supplier MSDS
Isophorone diisocyanate homopolymer				
Oral LD50	> 20,000 mg/kg		rat	Supplier MSDS
Methyl isobutyl ketone				
Oral LD50	> 2,000 mg/kg		rat	Supplier MSDS
Dermal LD50	> 20 ml/kg		rabbit	Supplier MSDS
Inhalation LC50	> 2,000 ppm	4 h	rat	Supplier MSDS
N-pentyl propionate				
Oral LD50	14,000 mg/kg		rat	RTECS
Dermal LD50	14,000 mg/kg		rabbit	RTECS
Naphthalene				
Oral LD50	490 mg/kg		rat	RTECS
Dermal LD50	> 2,500 mg/kg		rat	RTECS
Dermal LD50	> 20 g/kg		rabbit	RTECS
Inhalation LC50	> 340 mg/m3	1 h	rat	RTECS
P-toluenesulfonyl isocyanate				

Toxicity Test Type	Value	Time	Species	Source
Oral LD50	= 2,600 mg/kg		rat	Supplier MSDS
Propylene glycol monomethyl ether acetate				
Oral LD50	8.5 g/kg		Female Rat	Supplier MSDS
Dermal LD50	> 5 g/kg		rabbit	Supplier MSDS
Inhalation LC50	> 4,345 ppm	6 h	Male Rat	Supplier MSDS
Toluene				
Oral LD50	3,000 mg/kg		rat	Supplier MSDS
Dermal LD50	4,000 mg/kg		rabbit	Supplier MSDS
Inhalation LC50	5,300 ppm		mouse	Supplier MSDS
Xylene				
Oral LD50	4,300 mg/kg		rat	RTECS
Dermal LD50	> 1,700 mg/kg		rabbit	RTECS
Inhalation LC50	5,000 ppm	4 h	rat	RTECS

Key:

RTECS - Registry of Toxic Effects of Chemical Substances
CCOHS - Canadian Center for Occupational Health and Safety
Patty's - Patty's Industrial Hygiene and Toxicology, 3rd Edition

12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses.

Acute toxicity aquatic invertebrates

CAS-No.	Chemical Name	Species	Exposure time	Value	Type	Method
95-63-6	1,2,4-trimethyl benzene	Daphnia	48 h	6 mg/l	LC50	
108-67-8	1,3,5-trimethyl benzene	Daphnia	48 h	6 mg/l	EC50	
822-06-0	1,6-hexamethylene diisocyanate	Ceriodaphnia dubia	48 h	89 mg/l	EC50	
64742-94-5	Aromatic hydrocarbon	Daphnia	48 h	1 mg/l	EC50	
64742-95-6	Aromatic hydrocarbon	Daphnia	24 h	170 mg/l	EC50	
103-65-1	Benzene, propyl	Daphnia	24 h	2 mg/l	EC50	
123-86-4	Butyl acetate	Ceriodaphnia dubia	2 days	72.8 mg/l	EC50	
763-69-9	Ethyl 3-ethoxy propionate	Daphnia	4 days	100 µ l	LC50	
100-41-4	Ethylbenzene	Daphnia	48 h	1.8 mg/l	EC50	
112-07-2	Ethylene glycol monobutyl ether acetate	Daphnia	48 h	37 mg/l	EC50	
91-20-3	Naphthalene	Daphnia	48 h	2.16 mg/l	EC50	
108-88-3	Toluene	Water flea	1 day	100 ppm		
1330-20-7	Xylene	Water flea	1 days	10 mg/l	EC50	
1330-20-7	Xylene	Daphnia	1 days	10 mg/l	EC50	

Acute and extended toxicity of fishes

CAS-No.	Chemical Name	Species	Exposure time	Value	Type	Method
95-63-6	1,2,4-trimethyl benzene	Oncorhynchus mykiss (rainbow trout)	96 h	9.22 mg/l	EC50	
108-67-8	1,3,5-trimethyl benzene	Carassius auratus (goldfish)	96 h	12.5 mg/l	LC50	
822-06-0	1,6-hexamethylene diisocyanate	Brachydanio rerio (zebra fish)	96 h	82 mg/l	LC50	
64742-94-5	Aromatic hydrocarbon	Pimephales promelas (fat-head minnow)	96 h	45 mg/l	LC50	
64742-95-6	Aromatic hydrocarbon	Brachydanio rerio (zebra fish)	96 h	10 mg/l	LC50	
123-86-4	Butyl acetate	Pimephales promelas (fat-head minnow)	4 days	18 mg/l	LC50	
123-86-4	Butyl acetate	Lepomis macrochirus (Bluegill sunfish)	4 days	100 mg/l		
763-69-9	Ethyl 3-ethoxy propionate	Pimephales promelas (fat-head minnow)	4 days	65 µ l	LC50	

CAS-No.	Chemical Name	Species	Exposure time	Value	Type	Method
100-41-4	Ethylbenzene	Oncorhynchus mykiss (rainbow trout)	96 h	4.2 mg/l	LC50	
112-07-2	Ethylene glycol monobutyl ether acetate	Oncorhynchus mykiss (rainbow trout)	96 h	20 mg/l	LC50	
108-10-1	Methyl isobutyl ketone	Carassius auratus (goldfish)	1 day	460 mg/l		
108-10-1	Methyl isobutyl ketone	Pimephales promelas (fat-head minnow)	4 days	505 ppm		
108-10-1	Methyl isobutyl ketone	Leuciscus idus (Golden orfe)	2 days	672 mg/l		
91-20-3	Naphthalene	Oncorhynchus mykiss (rainbow trout)	96 h	1.6 mg/l	LC50	
4083-64-1	P-toluenesulfonyl isocyanate	Brachydanio rerio (zebra fish)	96 h	597 mg/l	LC50	
108-65-6	Propylene glycol monomethyl ether acetate	Pimephales promelas (fat-head minnow)	4 days	161 mg/l		
108-88-3	Toluene	Pimephales promelas (fat-head minnow)	4 days	32 mg/l		
108-88-3	Toluene	Lepomis macrochirus (Bluegill sunfish)	4 days	60 ppm		
108-88-3	Toluene	Carassius auratus (goldfish)	4 days	60 ppm		
1330-20-7	Xylene	Pimephales promelas (fat-head minnow)	4 days	21 mg/l	EC50	
1330-20-7	Xylene	Lepomis macrochirus (Bluegill sunfish)	4 days	22 mg/l	EC50	
1330-20-7	Xylene	Carassius auratus (goldfish)	4 days	24 mg/l	EC50	

Toxicity with aquatic plants

CAS-No.	Chemical Name	Species	Exposure time	Value	Type	Method
64742-95-6	Aromatic hydrocarbon	Algae	72 h	10 mg/l	EC50	
100-41-4	Ethylbenzene	green algae (type not specified)	72 h	4.6 mg/l	EC50	
112-07-2	Ethylene glycol monobutyl ether acetate	green algae (type not specified)	72 h	500 mg/l	EC50	
4098-71-9	Isophorone diisocyanate	Daphnia	27 mg/l	48 h		
108-10-1	Methyl isobutyl ketone	Daphnia	1 day	1,550 mg/l		
108-65-6	Propylene glycol monomethyl ether acetate	Daphnia	2 days	408 mg/l		

Mobility

13. Disposal considerations

Provincial Waste Classification:

Check appropriate provincial and local waste disposal regulations for proper classifications.

Waste Disposal Method:

Do not allow material to contaminate ground water systems. Incinerate or otherwise dispose of waste material in accordance with Federal, State, Provincial, and local requirements. Do not incinerate in closed containers. Send to a licensed waste management company.

14. Transport information

483-08, 483-11, 483-30, 483-38, 483-52, 483-77, 483-78

- TDG Shipping Name: PAINT RELATED MATERIAL
- Hazard class: 3
- UN-Number: 1263
- Packing group: II

483-15, 483-56, 483-57, 483-79

- TDG Shipping Name: PAINT RELATED MATERIAL
- Hazard class: 3
- UN-Number: 1263
- Packing group: III

15. Regulatory information

This product has been classified according to the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

TSCA Status:

Contact product information number for regulatory status of individual products.

CEPA Status

Contact product information number for regulatory status of individual products.

OCI

Contact product information number for regulatory status of individual products.

WHMIS Classification

483-56, 483-57, 483-77

- Class B Division 2
- Class D Division 1 Subdivision A
- Class D Division 2 Subdivision A 53
- Class D Division 2 Subdivision A 54
- Class D Division 2 Subdivision A 56
- Class D Division 2 Subdivision B 60
- Class D Division 2 Subdivision B 61

483-11, 483-30, 483-38, 483-52, 483-78

- Class B Division 2
- Class D Division 1 Subdivision A
- Class D Division 2 Subdivision A 56
- Class D Division 2 Subdivision B 60
- Class D Division 2 Subdivision B 61

483-08

- Class B Division 2
- Class D Division 1 Subdivision B
- Class D Division 2 Subdivision A 53
- Class D Division 2 Subdivision A 54
- Class D Division 2 Subdivision A 56
- Class D Division 2 Subdivision B 60
- Class D Division 2 Subdivision B 61

483-79

**ACKLANDS
GRAINGER®**

- Class B Division 3
- Class D Division 1 Subdivision A
- Class D Division 2 Subdivision A 53
- Class D Division 2 Subdivision A 56
- Class D Division 2 Subdivision B 60
- Class D Division 2 Subdivision B 61

483-15

- Class B Division 3
- Class D Division 1 Subdivision A
- Class D Division 2 Subdivision A 56
- Class D Division 2 Subdivision B 60
- Class D Division 2 Subdivision B 61

16. Other information

483-08™ 1,2,4-trimethyl benzene(3 - 7%), Aromatic hydrocarbon-B(5 - 10%), Butyl acetate(40 - 70%), Ethyl 3-ethoxy propionate(1 - 5%), Ethylbenzene(0.1 - 1.0%), Isophorone diisocyanate(0.1 - 1.0%), Isophorone diisocyanate(0.1 - 1.0%), Isophorone diisocyanate homopolymer(30 - 60%), Xylene(0.1 - 1.0%) **DENSITY: 966.00 WT PCT SOLIDS: 40.01 VOL PCT SOLIDS: 33.76 SOLVENT DENSITY: 862.85 VOC LE: 579.4 VOC AP: 579.3 FLASH POINT: -7 °C to below 23 °C H: 3 F: 3 R: 1 OSHA STORAGE: IB PHOTO-CHEMICALLY REACTIVE: YES**

483-11™ 1,2,4-trimethyl benzene(1 - 5%), 1,6-hexamethylene diisocyanate(0.1 - 1.0%), Aliphatic polyisocyanate resin(60 - 100%), Aromatic hydrocarbon-B(1 - 5%), Butyl acetate(3 - 7%), Ethylene glycol monobutyl ether acetate(1 - 5%), Propylene glycol monomethyl ether acetate(3 - 7%), Toluene(7 - 13%) **DENSITY: 1,080.00 WT PCT SOLIDS: 75.36 VOL PCT SOLIDS: 70.38 SOLVENT DENSITY: 896.76 VOC LE: 266.0 VOC AP: 266.0 FLASH POINT: -7 °C to below 23 °C H: 2 F: 3 R: 1 OSHA STORAGE: IB PHOTO-CHEMICALLY REACTIVE: YES**

483-15™ 1,2,4-trimethyl benzene(1 - 5%), 1,6-hexamethylene diisocyanate(0.1 - 1.0%), Aliphatic polyisocyanate resin(60 - 100%), Aromatic hydrocarbon-B(1 - 5%), Butyl acetate(3 - 7%) **DENSITY: 1,120.00 WT PCT SOLIDS: 90.00 VOL PCT SOLIDS: 87.23 SOLVENT DENSITY: 874.11 VOC LE: 111.9 VOC AP: 111.9 FLASH POINT: 38 °C to below 60 °C H: 2 F: 2 R: 1 OSHA STORAGE: II PHOTO-CHEMICALLY REACTIVE: YES**

483-30™ 1,2,4-trimethyl benzene(1 - 5%), 1,6-hexamethylene diisocyanate(0.1 - 1.0%), Aliphatic polyisocyanate resin(60 - 100%), Aromatic hydrocarbon-B(1 - 5%), Butyl acetate(30 - 60%) **DENSITY: 1,031.00 WT PCT SOLIDS: 61.04 VOL PCT SOLIDS: 54.39 SOLVENT DENSITY: 878.67 VOC LE: 401.5 VOC AP: 401.3 FLASH POINT: -7 °C to below 23 °C H: 2 F: 3 R: 1 OSHA STORAGE: IB PHOTO-CHEMICALLY REACTIVE: YES**

483-38™ Aliphatic polyisocyanate resin(60 - 100%), Methyl isobutyl ketone(15 - 40%) **DENSITY: 1,042.00 WT PCT SOLIDS: 74.12 VOL PCT SOLIDS: 66.07 SOLVENT DENSITY: 801.25 VOC LE: 269.6 VOC AP: 269.5 FLASH POINT: -7 °C to below 23 °C H: 3 F: 3 R: 1 OSHA STORAGE: IB PHOTO-CHEMICALLY REACTIVE: YES**

483-52™ 1,2,4-trimethyl benzene(1 - 5%), 1,6-hexamethylene diisocyanate(0.1 - 1.0%), Aliphatic polyisocyanate resin(60 - 100%), Aromatic hydrocarbon-B(1 - 5%), Butyl acetate(3 - 7%), Ethylene glycol monobutyl ether acetate(1 - 5%), Propylene glycol monomethyl ether acetate(3 - 7%), Toluene(7 - 13%) **DENSITY: 1,080.00 WT PCT SOLIDS: 75.36 VOL PCT SOLIDS: 70.38 SOLVENT DENSITY: 896.76 VOC LE: 266.0 VOC AP: 266.0 FLASH POINT: -7 °C to below 23 °C H: 2 F: 3 R: 1 OSHA STORAGE: IB PHOTO-CHEMICALLY REACTIVE: YES**

483-56™ 1,2,4-trimethyl benzene(1 - 5%), 1,6-hexamethylene diisocyanate(0.1 - 1.0%), Aliphatic polyisocyanate resin(60 - 100%), Aromatic hydrocarbon-B(3 - 7%), Butyl acetate(3 - 7%), Ethylbenzene(0.1 - 1.0%), Isophorone diisocyanate(0.1 - 1.0%), Isophorone diisocyanate(0.1 - 1.0%), Isophorone diisocyanate homopolymer(15 - 40%), Xylene(0.1 - 1.0%) **DENSITY: 1,110.00 WT PCT SOLIDS: 90.33 VOL PCT SOLIDS: 87.42 SOLVENT DENSITY: 872.32 VOC LE: 107.3 VOC AP: 107.3 FLASH POINT: 24 °C to below 38 °C H: 3 F: 3 R: 1 OSHA STORAGE: IC PHOTO-CHEMICALLY REACTIVE: YES**

483-57™ 1,2,4-trimethyl benzene(1 - 5%), 1,6-hexamethylene diisocyanate(0.1 - 1.0%), Aliphatic polyisocyanate resin(60 - 100%), Aromatic hydrocarbon-B(3 - 7%), Butyl acetate(3 - 7%), Ethylbenzene(0.1 - 1.0%), Isophorone diisocyanate(0.1 - 1.0%), Isophorone diisocyanate(0.1 - 1.0%), Isophorone diisocyanate homopolymer(15 - 40%), Xylene(0.1 - 1.0%) **DENSITY: 1,110.00 WT PCT SOLIDS: 90.33 VOL PCT SOLIDS: 87.42 SOLVENT DENSITY: 872.32 VOC LE: 107.3 VOC AP: 107.3 FLASH POINT: 24 °C to below 38 °C H: 3 F: 3 R: 1 OSHA STORAGE: IC PHOTO-CHEMICALLY REACTIVE: YES**

483-77™ 1,6-hexamethylene diisocyanate(0.1 - 1.0%), Aliphatic polyisocyanate resin(30 - 60%), Aromatic hydrocarbon-A(1 - 5%), Butyl acetate(15 - 40%), Ethyl 3-ethoxy propionate(30 - 60%), Ethylbenzene(1 - 5%), Naphthalene(0.1 - 1.0%), P-toluenesulfonyl isocyanate(0.1 - 1.0%), Xylene(3 - 7%) **DENSITY: 980.00 WT PCT SOLIDS: 34.16 VOL PCT SOLIDS: 29.31 SOLVENT DENSITY: 912.34 VOC LE: 645.3 VOC AP: 645.2 FLASH POINT: -7 °C to below 23 °C H: 3 F: 3 R: 1 OSHA STORAGE: IB PHOTO-CHEMICALLY REACTIVE: YES**

483-78™ Aliphatic polyisocyanate resin(30 - 60%), Butyl acetate(1 - 5%), Methyl isobutyl ketone(30 - 60%), N-pentyl propionate(3 - 7%), Propylene glycol monomethyl ether acetate(10 - 30%) **DENSITY: 951.00 WT PCT SOLIDS: 42.17 VOL PCT SOLIDS: 34.53 SOLVENT DENSITY: 840.80 VOC LE: 550.1 VOC AP: 549.9 FLASH POINT: -7 °C to below 23 °C H: 2 F: 3 R: 1 OSHA STORAGE: IB PHOTO-CHEMICALLY REACTIVE: YES**

483-79™ 1,2,4-trimethyl benzene(10 - 30%), 1,3,5-trimethyl benzene(1 - 5%), Aliphatic polyisocyanate resin(30 - 60%), Aromatic hydrocarbon-B(10 - 30%), Benzene, propyl-(1 - 5%), Ethyl 3-ethoxy propionate(10 - 30%), Ethylene glycol monobutyl ether acetate(5 - 10%), P-toluenesulfonyl

isocyanate(0.1 - 1.0%), Xylene(0.5 - 1.5%) **DENSITY: 999.00 WT PCT SOLIDS: 43.98 VOL PCT SOLIDS: 37.95 SOLVENT DENSITY: 897.36 VOC LE: 559.8 VOC AP: 559.8 FLASH POINT: 38 °C to below 60 °C H: 2 F: 2 R: 1 OSHA STORAGE: II PHOTO-CHEMICALLY REACTIVE: YES**

Footnotes:

ACGIH American Conference of Governmental Industrial Hygienists.

IARC International Agency for Research on Cancer.

NTP National Toxicology Program.

OSHA Occupational Safety and Health Administration.

STEL Short term exposure limit.

TWA Time-weighted average.

DENSITY Density g/l

SOLVENT DENSITY (g/l)

VOC LE Theoretical VOC calculated less exempt solvents and water (g/l)

VOC AP Theoretical VOC calculated as packaged (g/l)

PNOR Particles not otherwise regulated.

PNOC Particles not otherwise classified.

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Notice:

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