

## 1. Identification of the substance/mixture and of the company/undertaking

<b>Product name</b>	Standohyd® Special Additive	
<b>Product code</b>	02016197	090415
<b>Intended use</b>	Hardener for professional use	
	Standox 47802 W. Anchor Ct. US Plymouth, MI, 48170	
<b>Telephone</b>	Product information	+1 (800) 551 9296
	Medical emergency	+1 (800) 441-3637
	Transportation emergency	+1 (800) 424-9300

**Chemical Family** No data available.

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## 2. Composition/information on ingredients

CAS-No.	Chemical Name	Concentration
No information available.	Aliphatic polyisocyanate resin	60 - 70%
108-65-6	Propylene glycol monomethyl ether acetate	20 - 30%
4083-64-1	P-toluenesulfonyl isocyanate	0.2%

OSHA Hazardous: Yes

## 3. Hazards identification

### Emergency Overview:

DANGER! EXPOSURE MAY CAUSE LUNG INJURY AND ALLERGIC RESPIRATORY REACTION. EFFECTS MAY BE PERMANENT. FLAMMABLE LIQUID AND VAPOR. VAPORS AND SPRAY MIST HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS SUCH AS DIZZINESS, HEADACHE, OR NAUSEA. MAY CAUSE NOSE, THROAT, EYE AND SKIN IRRITATION. CAN BE ABSORBED THROUGH THE SKIN.

### 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. 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. Skin contact may cause skin sensitization.

**Other Potential Health Effects in addition to those listed above:****Propylene glycol monomethyl ether acetate**

Recurrent overexposure may result in liver and kidney injury.

**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.

**Note**

If a chemical listed above is not identified as a carcinogen, it is not an "IARC, NTP or OSHA carcinogen."

## 4. First aid measures

**General advice:**

When symptoms persist or in all cases of doubt seek medical advice. Never give anything by mouth to an unconscious person.

**Inhalation:**

Avoid inhalation of vapour or mist. Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

**Skin contact:**

Do NOT use solvents or thinners. Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

**Eye contact:**

Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

**Ingestion:**

If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. Keep at rest.

## 5. Fire-fighting measures

**Hazardous combustion products:**

Fire will produce dense black smoke containing hazardous combustion products (see heading 10). Exposure to decomposition products may be a hazard to health.

**Fire and Explosion Hazards:**

Combustible liquid. When heated above the flashpoint, emits vapors which, when mixed with air, will burn if an ignition source is present. Fine mist or sprays could ignite at temperatures below the flashpoint.

**Suitable extinguishing media:**

Universal aqueous film-forming foam, Carbon dioxide (CO<sub>2</sub>), Dry chemical

**Special Protective Equipment and Fire Fighting Procedures:**

Wear as appropriate: Full protective flameproof clothing. Wear self contained breathing apparatus for fire fighting if necessary. In the event of fire, cool tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

**Additional advice:**

Cool closed containers exposed to fire with water spray.

## 6. Accidental release measures

### Procedures for cleaning up spills or leaks:

Ventilate area. If heated above the flashpoint, remove sources of ignition. Do not breathe vapors. Do not get in eyes or on skin. Wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C), eye protection, gloves and protective clothing. Pour liquid decontamination solution over the spill and allow to sit at least 10 minutes. Typical decontamination solutions for isocyanate containing materials are: 20% Surfactant (Tergitol TM 10) and 80% Water OR 0-10% Ammonia, 2-5% Detergent and Water (balance) Confine and remove with inert absorbent. Pressure can be generated. Do not seal waste containers for 48 hours to allow CO<sub>2</sub> to vent. After 48 hours, material may be sealed and disposed of properly.

## 7. Handling and storage

### Safe handling advice:

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Preparation may charge electrostatically: always use grounded leads when transferring from one container to another. Operators should wear antistatic footwear and clothing. No sparking tools should be used. Avoid skin and eye contact. Do not breathe vapours or spray mist. Smoking, eating and drinking should be prohibited in the application area. 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.

### Advice on protection against fire and explosion:

Observe label precautions. Keep away from heat, flame and other sources of ignition. When heated above its flash point, this must be handled as if it were a flammable liquid. Close container after each use. Do not transfer contents to bottles or unlabeled containers. Wash thoroughly after handling and before eating or smoking. Never use pressure to empty container: container is not a pressure vessel. Always keep in containers of same material as the original one. The accumulation of contaminated rags may result in spontaneous combustion. Good housekeeping standards and regular safe removal of waste materials will minimize the risks of spontaneous combustion and other fire hazards.

### Storage

#### Requirements for storage areas and containers:

Observe label precautions. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### Advice on common storage:

Store separately from oxidizing agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Precautions should be taken to avoid exposure to atmospheric humidity or water. Evolution of CO<sub>2</sub> in closed containers causes overpressure and produces a risk of bursting.

#### Additional information on storage conditions:

Precautions should be taken to avoid exposure to atmospheric humidity or water. Humid air and/or water will produce carbon dioxide which will pressurize the container. Open drum carefully as content may be under pressure.

OSHA/NFPA Storage Classification: II

## 8. Exposure controls/personal protection

### Engineering controls and work practices:

Provide adequate ventilation. Air-fed protective respiratory equipment must be worn by spray operator even when good ventilation is provided.

### National occupational exposure limits

CAS-No.	Chemical Name	Source	Time	Type	Value	Note
108-65-6	Propylene glycol monomethyl ether acetate	Dupont	8 & 12 hour	TWA	10 ppm	

\*\* TWA = Time-weighted average.

**Protective equipment:**

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

**Respiratory protection:**

Do not breathe vapors or mists. Wear a positive-pressure, supplied air respirator (NIOSH approved TC-19C), while mixing activator with paint, during application and until all vapors and spray mists are exhausted. Follow respirator manufacturer's directions for respirator use. Do not permit anyone without protection in the painting area. Refer to the hardener/activator label instructions for further information. Individuals with history of lung or breathing problems or prior reaction to isocyanates should not use or be exposed to vapor or spray mist.

**Eye protection:**

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

**Skin and body protection:**

Neoprene gloves and coveralls are recommended.

**Hygiene measures:**

Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use organic solvents!

**Environmental exposure controls:**

Do not let product enter drains. For ecological information, refer to Ecological Information Section 12.

## 9. Physical and chemical properties

**Appearance**

Form: liquid    Colour: clear

Flash point	100 - 141 deg F
Ignition temperature	272 °C
Lower Explosive Limit	1.3 %
Upper Explosive Limit	13.1 %
Evaporation rate	Slower than Ether
Vapor pressure of principal solvent	1.2 hPa
Water solubility	appreciable
Vapor density of principal solvent (Air = 1)	4.6
Approx. Boiling Range	128 °C
Approx. Freezing Range	Not applicable.
Gallon Weight (lbs/gal)	9.12
Specific Gravity	1.09
Percent Volatile By Volume	34.10%
Percent Volatile By Weight	30.0%
Percent Solids By Volume	65.90%
Percent Solids By Weight	70.00%
Form	liquid
pH (waterborne systems only)	Not applicable.
VOC* less exempt (lbs/gal)	2.7
VOC* as packaged (lbs/gal)	2.7

\* VOC less exempt (theoretical) and VOC as packaged (theoretical) are based upon the VOC of the packaged material at the point of manufacture.

## 10. Stability and reactivity

**Stability:**

Stable.

**Conditions to avoid:**

Stable under recommended storage conditions.

**Materials to avoid:**

Keep away from oxidising agents and strongly acid or alkaline materials. Amines and alcohols cause exothermic reactions. Mixture reacts slowly with water resulting in evolution of CO<sub>2</sub>. Evolution of CO<sub>2</sub> in closed containers causes overpressure and produces a risk of bursting.

**Hazardous decomposition products:**

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen as well as hydrogen cyanide, amines, alcohols and water.

**Hazardous Polymerization:**

Will not occur.

**Sensitivity to Static Discharge:**

If heated above the flash point, 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

No data available on the product. See Hazards Identification Section 3 for health effects of the product components.

## 12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses. Product does not contain organic linked halogens contributing to AOX.

## 13. Disposal considerations

**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.

## 14. Transport information

No information available.

## 15. Regulatory information

**TSCA Status:**

In compliance with TSCA Inventory requirements for commercial purposes.

**Photochemical Reactivity:**

Non-photochemically reactive

CAS #	Ingredient	EPCRA					CERCLA RQ(lbs)	CAA HAP
		302	TPQ	RQ	311 - 312	313		

**Regulatory information**

CAS #	Ingredient	EPCRA					CERCLA RQ(lbs)	CAA HAP
		302	TPQ	RQ	311 - 312	313		
No information available.	Aliphatic polyisocyanate resin	N	NR	NR	NA	N	NA	N
108-65-6	Propylene glycol monomethyl ether acetate	N	NR	NR	F	N	NR	N
4083-64-1	P-toluenesulfonyl isocyanate	N	NR	NR	A,C,R	N	NR	N

**Key:**

EPCRA	Emergency Planning and Community Right-to-know Act (aka Title III, SARA)
302	Extremely hazardous substances
311/312 Categories	F = Fire Hazard R = Reactivity Hazard P = Pressure Related Hazard A = Acute Hazard C = Chronic Hazard
313 Information	Section 313 Supplier Notification - The chemicals listed above with a 'Y' in the 313 column are subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know act of 1986 and of 40 CFR 372.
CERCLA	Comprehensive Emergency Response, Compensation and Liability Act of 1980.
HAP	Listed as a Clean Air Act Hazardous Air Pollutant.
TPQ	Threshold Planning Quantity.
RQ	Reportable Quantity
NA	not available
NR	not regulated

**16. Other information**

HMIS rating H: 2 F: 2 R: 1

Glossary of Terms:

ACGIH	American Conference of Governmental Industrial Hygienists.
IARC	International Agency for Research on Cancer.
NTP	National Toxicology Program.
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration.
STEL	Short term exposure limit.
TWA	Time-weighted average.
PNOR	Particles not otherwise regulated.
PNOC	Particles not otherwise classified.

NOTE: The list (above) of glossary terms may be modified.

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MSDS prepared by:  
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