

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

Manufacturer: Standox
47802 W. Anchor Ct.
Plymouth, MI 48170

Telephone: Product information: (800) 551-9296
Medical emergency: (800) 441-3637
Transportation emergency: (800) 424-9300 (CHEMTREC)

Product: **1 - Standox® 2K Clears**

DOT Shipping Name: See Index.

Hazardous Materials Information: See Section 10.

Products covered in this document include: Standocryl® 2.1 Clear (10020), Standocryl® 2.1 HS Clear (16156), Standocryl® 2K Clear 15-60 (15900), Standocryl® 2K Clear 15-60 Plus (16198), Standocryl® 2K HS Clear (14580), Standocryl® 2K Matt Clear 007 (16163), Standocryl® 2K Plastic Clear Satin Gloss (12227), Standocryl® 2K Premium Clear (16252), Standocryl® VOC Platinum Clear (16161)

2. Composition/information on ingredients

INGREDIENTS	CAS #	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
2-butoxyethyl acetate	112-07-2	0.4	A 130.0 mg/m ³ , D 10.0 ppm Skin, D 20.0 ppm 8 & 12 hour TWA, O None
4-chlorobenzotrifluoride	98-56-6	7.6@25.0 °C	D 20.0 ppm 8 & 12 hour TWA, A None, O None
Acetone	67-64-1	247.0@68.0 °F	A 750.0 ppm 15 min STEL, A 500.0 ppm, O 1000.0 ppm, D 500.0 ppm 8 & 12 hour TWA
Acrylic polymer-A	NotAvail	None	A None, O None
Acrylic polymer-B	162568-42-5	None	A None, O None
Acrylic polymer-C	69215-54-9	None	A None, O None
Acrylic resin-A	NotAvail	None	A None, O None
Acrylic resin-B	98613-27-5	None	A None, O None
Amorphous silica	7631-86-9	None	A 10.0 mg/m ³ Total Dust, O 20.0 mppcf, D 3.0 mg/m ³
Amorphous silica - precipitated	112926-00-8	None	A 10.0 mg/m ³ , O 15.0 mg/kg Total Dust, O 5.0 mg/m ³ TWA Respirable Dust, D 3.0 mg/m ³ Respirable Dust
Aromatic hydrocarbon	64742-95-6	10.0@25.0 °C	D 50.0 ppm, 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
Ethanol, 2-(2-butoxyethoxy)-	112-34-5	0.0	D 5.0 ppm, A None, O None
Ethoxypropyl acetate	98516-30-4	2.3	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
Isododecane	31807-55-3	None	A None, O None
Methyl amyl ketone	110-43-0	3.4	A 50.0 ppm, O 100.0 ppm
Methyl ethyl ketone	78-93-3	71.2	A 300.0 ppm 15 min STEL, A 200.0 ppm, O 200.0 ppm, D 300.0 ppm 15 min TWA, D 200.0 ppm 8 & 12 hour TWA
Methyl isoamyl ketone	110-12-3	5.3	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
Polyacrylic resin	.	None	A None, O None
Polycaprolactone oligomer	35484-93-6	None	A None, O None
Polyester resin-A	NotAvail	None	A None, O None
Polyester resin-B	129922-22-1	None	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
Substituted benzotriazole	127519-17-9	0.1	S 4.0 mg/m ³ , A None, O None
Ultraviolet absorber	NotAvail	0.0@25.0 °C	A None, O None
Waxes	NotAvail	10.9	A None, O None
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:

4-chlorobenzotrifluoride

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: skin. Prolonged or repeated exposure may cause damage to any of the following organs/systems: kidneys, liver, thyroid. Potential skin sensitizer that may cause allergic reactions and contact dermatitis resulting in severe irritation, dryness, and cracking of the skin. Ingestion may cause any of the following: gastrointestinal irritation. Eye contact may cause any of the following: permanent eye injury. Inhalation may cause any of the following: stupor (central nervous system depression), respiratory tract irritation.

Acetone

The following medical conditions may be aggravated by exposure: lung disease, eye disorders, skin disorders. Overexposure may cause damage to any of the following organs/systems: blood, central nervous system, eyes, kidneys, liver, respiratory system, skin.

Acrylic resin-B

Skin or eye contact may cause any of the following: irritation.

Aromatic hydrocarbon

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.

Ethanol, 2-(2-butoxyethoxy)-

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, eyes, kidneys, liver, skin. Tests in laboratory animals have shown effects on any of the following organs/systems: blood, kidneys, liver. Recurrent overexposure may result in liver and kidney injury. High doses in laboratory animals have shown non specific effects such as irritation, weight loss, moderate blood changes. Eye contact may cause any of the following: severe irritation, burns, corneal injury.

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.

Methyl ethyl ketone

Material is irritating to mucous membranes and upper respiratory tract. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, eyes, respiratory system, skin. Prolonged or repeated overexposure may cause any of the following: conjunctivitis, dermatitis. High concentrations have caused embryotoxic effects in laboratory animals. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness.

Methyl isoamyl ketone

Extremely high oral doses in laboratory animals have shown weight changes in various organs such as the liver, kidney and adrenal gland. In addition liver injury was observed.

Methyl isobutyl ketone

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

Propylene glycol monomethyl ether acetate

Recurrent overexposure may result in liver and kidney injury.

Substituted benzotriazole

The following medical conditions may be aggravated by exposure: jaundice, liver disease. Tests in laboratory animals have shown effects on any of the following organs/systems: blood, kidneys, liver, thyroid, upper respiratory system.



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 any of the following: 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 11 for exact values.

Flammable Limits: LFL 0.9 % UFL 12.8 %

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. If the material contains, or is mixed with an isocyanate activator/hardener: 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 TMN 10) and 80% Water OR 0-10% Ammonia, 2-5% Detergent and Water (balance). Pressure can be generated. Do not seal waste containers for 48 hours to allow CO₂ to vent. After 48 hours, material may be sealed and disposed 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. If this product contains isocyanates or is used with an isocyanate activator/hardener, wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C) while mixing activator/hardener with paint, during application and until all vapors and spray mist are exhausted. If product does not contain or is not mixed with an isocyanate activator/hardener, a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH TC-23C) and particulate filter (NIOSH TC-84A) may be used. Follow respirator manufacturer's directions for respirator use. Do not





permit anyone without protection in the painting area. Individuals with history of lung or breathing problems or prior reaction to isocyanates should not use or be exposed vapor or spray mist if product contains or is mixed with isocyanate activators/hardeners.

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
Water solubility	NIL
Vapour density	Heavier than air
Approx. Boiling Range (°C)	56 – 139 °C
Approx. Freezing Range (°C)	-74 – -35 °C
Gallon Weight (lbs/gal)	8.01158 - 8.94627
Specific Gravity	0.96 - 1.07
Percent Volatile By Volume	46.69 - 58.51
Percent Volatile By Weight	40.97 - 51.71
Percent Solids By Volume	41.49 - 53.31
Percent Solids By Weight	48.29 - 59.03

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. Additional Information

10020™ 4-chlorobenzotrifluoride, Acetone, Acrylic polymer-A, Methyl amyl ketone, Polyester resin-A **GAL WT: 8.95 WT PCT SOLIDS: 49.80 VOL PCT SOLIDS: 46.99 SOLVENT DENSITY: 8.49 VOC LE: 2.3 VOC AP: 1.6 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTOCHEMICALLY REACTIVE: NO**

12227™ 1,2,4-trimethyl benzene(2%*), Acrylic resin-B, Amorphous silica - precipitated, Aromatic hydrocarbon, Butyl acetate, Ethylbenzene(1.4%* @), Polyester resin-A, Propylene glycol monomethyl ether acetate, Xylene(6%* @) **GAL WT: 8.68 WT PCT SOLIDS: 50.32 VOL PCT SOLIDS: 41.49 SOLVENT DENSITY: 7.40 VOC LE: 4.3 VOC AP: 4.3 FLASH POINT: 73 °F to below 100 °F H: 2 F: 3 R: 0 OSHA STORAGE: IC TSCA STATUS: In Compliance PHOTOCHEMICALLY REACTIVE: YES**

14580™ 1,2,4-trimethyl benzene(6%*), 1,3,5-trimethyl benzene, Aromatic hydrocarbon, Butyl acetate, Ethoxypropyl acetate, Ethylbenzene(1.9%* @), Polyacrylic resin, Xylene(8%* @) **GAL WT: 8.43 WT PCT SOLIDS: 59.03 VOL PCT SOLIDS: 53.31 SOLVENT DENSITY: 7.35 VOC LE: 3.5 VOC AP: 3.5 FLASH POINT: 100 °F - 141 °F H: 2 F: 2 R: 0 OSHA STORAGE: II TSCA STATUS: In Compliance PHOTOCHEMICALLY REACTIVE: YES**

15900™ Acrylic resin-A, Butyl acetate, Ethylbenzene(5.3%* @), Isododecane, Methyl amyl ketone, Methyl isoamyl ketone, Methyl isobutyl ketone(3%* @), Polyester resin-A, Ultraviolet absorber, Xylene(21%* @) **GAL WT: 8.07 WT PCT SOLIDS: 49.42 VOL PCT SOLIDS: 42.83 SOLVENT DENSITY: 7.12 VOC LE: 4.1 VOC AP: 4.1 FLASH POINT: 73 °F to below 100 °F H: 2 F: 3 R: 0 OSHA STORAGE: IC TSCA STATUS: In Compliance PHOTOCHEMICALLY REACTIVE: YES**

16156™ 4-chlorobenzotrifluoride, Acetone, Acrylic polymer-A, Acrylic resin-A, Butyl acetate, Methyl amyl ketone, Polyester resin-B, Substituted benzotriazole **GAL WT: 8.90 WT PCT SOLIDS: 52.24 VOL PCT SOLIDS: 49.84 SOLVENT DENSITY: 8.47 VOC LE: 2.3 VOC AP: 1.7 FLASH POINT: 20 °F to below 73 °F H: 1 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTOCHEMICALLY REACTIVE: NO**

16161™ 1,2,4-trimethyl benzene(3%*), Acrylic resin-A, Aromatic hydrocarbon, Butyl acetate, Ethylbenzene(0.8%* @), Methyl isoamyl ketone, Polycaprolactone oligomer, Polyester resin-A, Xylene(3%* @) **GAL WT: 8.01 WT PCT SOLIDS: 49.88 VOL PCT SOLIDS: 42.69 SOLVENT DENSITY: 7.35 VOC LE: 4.0 VOC AP: 4.0 FLASH POINT: 100 °F - 141 °F H: 2 F: 2 R: 0 OSHA STORAGE: II TSCA STATUS: In Compliance PHOTOCHEMICALLY REACTIVE: YES**

16163™ 1,2,4-trimethyl benzene(2%*), 2-butoxyethyl acetate(3% @), Amorphous silica, Aromatic hydrocarbon, Butyl acetate, Ethylbenzene(0.8%* @), Polyacrylic resin, Polyester resin-A, Waxes, Xylene(3%* @) **GAL WT: 8.61 WT PCT SOLIDS: 54.94 VOL PCT SOLIDS: 47.53 SOLVENT DENSITY: 7.47**





**VOC LE: 3.9 VOC AP: 3.9 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance
PHOTOCHEMICALLY REACTIVE: YES**

16198™ Acetone, Acrylic polymer-C, Acrylic resin-A, Butyl acetate, Ethanol, 2-(2-butoxyethoxy)-(3%*@), Ethylbenzene(5.3%*@), Methyl ethyl ketone, Methyl isoamyl ketone, Polyester resin-A, Xylene(21%*@) **GAL WT: 8.03 WT PCT SOLIDS: 48.29 VOL PCT SOLIDS: 41.56 SOLVENT DENSITY: 7.10
VOC LE: 4.1 VOC AP: 4.0 FLASH POINT: 73 °F to below 100 °F H: 2 F: 3 R: 0 OSHA STORAGE: IC TSCA STATUS: In Compliance
PHOTOCHEMICALLY REACTIVE: YES**

16252™ 1,2,4-trimethyl benzene(5%*), 1,3,5-trimethyl benzene, Acrylic polymer-B, Acrylic resin-A, Aromatic hydrocarbon, Butyl acetate, Ethylbenzene(0.3%*@), Methyl isoamyl ketone, Polyester resin-A, Xylene(1%*@) **GAL WT: 8.27 WT PCT SOLIDS: 57.58 VOL PCT SOLIDS: 50.22
SOLVENT DENSITY: 7.01 VOC LE: 3.5 VOC AP: 3.5 FLASH POINT: 100 °F - 141 °F H: 2 F: 2 R: 0 OSHA STORAGE: II TSCA STATUS: In
Compliance PHOTOCHEMICALLY REACTIVE: YES**

Footnotes:

TSCA: in compliance In compliance with TSCA Inventory requirements for commercial purposes.

ACGIH American Conference of Governmental Industrial Hygienists.

IARC International Agency for Research on Cancer.

NTP National Toxicology Program.

OSHA Occupational Safety and Health Administration.

PNOR Particles not otherwise regulated.

PNOC Particles not otherwise classified.

STEL Short term exposure limit.

TWA Time-weighted average.

All products denoted with TM or ® are trademarks or registered trademarks of E. I. du Pont de Nemours and Company or its affiliates.

* = Section 313 Supplier Notification: These chemicals are subject to the reporting requirements of Section 313 of the Emergency planning and Right-to-Know act of 1986 and of 40 CFR 372.

@ = Listed as a Clean Air Act Hazardous Air Pollutant.

= EPCRA Section 302 - Extremely hazardous substances.

Notice:

The information on this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

