

**Safety Data Sheet**  
acc. to OSHA HCS (29 CFR 1910.1200)

**Lustro**

Revision: 11/1/2017

**1. Identification**

**Product identifier**

**Product name:** Lustro

**Product number:** LUC

**Recommended use and restriction on use**

**Recommended use:** Glass cleaner

**Restrictions on use:** No relevant information available.

**Details of the supplier of the Safety Data Sheet**

Verax Chemical Company  
20102 Broadway Ave  
Snohomish, WA 98296  
Tel: 360-668-2431

**Emergency telephone number**

USA: (800) 535-5053                      International: +1 (352) 323-3500

**2. Hazard(s) identification**

**Classification of the substance or mixture**

**Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)**

Hazard class and category	Hazard statement code(s)	
Skin corrosion/irritation	Cat. 1.	H314
Serious eye damage/eye irritation	Cat. 1.	H318
Specific target organ toxicity (single exposure)	Cat. 3.	H335
Flammable Liquids	Cat. 2.	H227

**Label elements**

**Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)** Hazard pictograms

**Signal word:** Danger

**Pictograms**



GHS02    GHS05    GHS08

**Hazard statements**

H227	Combustible liquid.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

**Precautionary statements - prevention**

Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dusts or mists. Wash face, hands and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed Ground/bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking

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tools. Take precautionary measures against static discharge. Keep cool.

### Precautionary statements – response

Immediately call a POISON CENTER or doctor

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

### Precautionary statements – storage

Store in a well-ventilated place. Keep cool. Store locked up.

### Precautionary statements – disposal

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

### Hazardous ingredients for labeling

Octamethylcyclotetrasiloxane, Distillates (petroleum), hydrotreated light

### Other hazards

Harmful to aquatic life with long lasting effects

## 3. Composition/information on ingredients

Chemical Name	CAS No.	Weight %
1-Methoxy-2-propanol	107-98-2	20-30
Isopropyl Alcohol	67-63-0	20-30
Ammonium hydroxide	1336-21-6	<5
Ethanol	64-17-5	<1
Ammonium Sulfate	7783-20-2	<1

### Additional information:

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret. \*\*

## 4. First-aid measures

### Description of first aid measures

#### After inhalation

Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor/physician.

#### After skin contact

Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

#### After eye contact

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Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

**After swallowing**

Rinse mouth. Do NOT induce vomiting.

**Most important symptoms and effects, both acute and delayed**

May be harmful if swallowed. Causes severe skin burns and eye damage. May cause drowsiness or dizziness.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

## 5. Fire-fighting measures

**Extinguishing media****Suitable extinguishing agents**

Use CO<sub>2</sub>, dry chemical, or foam for extinction.

**Unsuitable extinguishing agents:** Not determined.

**Special hazards arising from the substance or mixture**

Highly flammable liquid and vapor.

**Advice for firefighters****Protective equipment:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Use personal protective equipment as required.

**Environmental precautions**

See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up****Methods for containment**

Prevent further leakage or spillage if safe to do so.

**Methods for clean-up**

Keep in suitable, closed containers for disposal.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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### 7. Handling and storage

#### Precautions for safe handling

##### Recommendations

Wear protective gloves/protective clothing and eye/face protection. Do not breathe dusts or mists. Wash face, hands and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area.

**Information about protection against explosions and fires:** Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion proof equipment. Use only non-sparking tools. Keep cool.

#### Conditions for safe storage, including any incompatibilities

##### Storage Conditions

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

##### Requirements to be met by storerooms and receptacles

Avoid storage near extreme heat, ignition sources or open flame.

##### Incompatible substances or mixtures

None known based on information supplied.

**Specific end use(s):** No relevant information available.

### 8. Exposure controls/personal protection

#### Occupational exposure limits

##### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Chemical Name	CAS No.	Type	[ppm]	[mg/m <sup>3</sup> ]
1-Methoxy-2-propanol	107-98-2	TWA	50	-
		STEL	100	-
Isopropyl Alcohol	67-63-0	TWA	200	-
		STEL	400	-
Ethyl Alcohol	64-17-5	TWA	1000	1900

##### US. ACGIH Threshold Limit Values

Chemical Name	CAS No.	Type	[ppm]	[mg/m <sup>3</sup> ]
1-Methoxy-2-propanol	107-98-2	TWA	50	-
		STEL	100	-
Isopropyl Alcohol	67-63-0	TWA	200	-
		STEL	400	-
Ethyl Alcohol	64-17-5	STEL	1000	-
Direct Blue 86	1330-38-7	TWA		1 (Cu dust and mist)

##### US. NIOSH: Pocket Guide to Chemical Hazards

Chemical Name	CAS No.	Type	[ppm]	[mg/m <sup>3</sup> ]
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1-Methoxy-2-propanol	107-98-2	TWA	100	360
		STEL	150	540
Isopropyl Alcohol	67-63-0	IDLH	2000	-
		TWA	400	980
		STEL	500	1225
Ethyl Alcohol	64-17-5	IDLH	3300	-
		TWA	1000	1900
Direct Blue 86	1330-38-7	IDLH	-	100 (Cu dust and mist)
		TWA		1 (Cu dust and mist)

#### Notation

PEL Permissible exposure limit.

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified.

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average.

IDLH Immediately Dangerous to Life or Health

#### Exposure controls

##### Appropriate engineering controls

Apply technical measures to comply with the occupational exposure limits.

##### Individual protection measures, such as personal protective equipment

##### General protective and hygienic measures

Handle in accordance with good industrial hygiene and safety practice.

##### Eye/face protection

Refer to 29 CFR 1910.133 for eye and face protection regulations.

##### Skin and body protection

Refer to 29 CFR 1910.138 for appropriate skin and body protection.

##### Respiratory protection

Refer to 29 CFR 1910.134 for respiratory protection requirements.

##### Other protection measures

None.

##### Limitation and supervision of exposure into the environment

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

**Risk management measures** No special requirements.

## 9 Physical and chemical properties

#### Information on physical and chemical properties

##### Appearance

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<b>Form</b>	Liquid
<b>Color</b>	Clear, blue
<b>Odor</b>	Ammonia
<b>Odor threshold</b>	Not determined
<b>pH</b>	12
<b>Melting point/freezing point</b>	Not determined
<b>Boiling point/boiling point range</b>	95.6°C (204°F)
<b>Flash point</b>	-17.8°C (0°F)
<b>Auto-ignition temperature</b>	Not determined
<b>Decomposition temperature</b>	Not determined
<b>Flammability (solid, gas)</b>	Not determined
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%)</b>	Not determined
<b>Flammability limit – upper (%)</b>	Not determined
<b>Explosive limit – lower (%)</b>	Not determined
<b>Explosive limit – upper (%)</b>	Not determined
<b>Vapor Pressure at 20°C (68°F)</b>	Not determined
<b>Density at 20°C (68°F)</b>	0.955 g/cm <sup>3</sup> (7.96 lbs/gal)
<b>Relative density</b>	Not determined
<b>Vapor density</b>	Not determined
<b>Evaporation rate</b>	Not determined
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Fully miscible
<b>Partition coefficient (n-octanol/water)</b>	Not determined
<b>Viscosity</b>	Not determined
<b>Other information</b>	No relevant information available

**10 Stability and reactivity**

**Reactivity**

The product is stable and non-reactive under normal conditions of use, storage, and transport

**Chemical stability**

The product is stable under normal conditions

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep out of reach of children.

**Incompatible materials**

None known based on information supplied.

**Hazardous decomposition products**

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None known based on information supplied.

**11 Toxicological information**

**Information on likely routes of exposure**

**Product Information**

**Eye Contact:** Causes severe eye damage.

**Skin Contact:** Causes severe skin burns.

**Inhalation:** Do not inhale.

**Ingestion:** May be harmful if swallowed.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
1-Methoxy-2-propanol 107-98-2	=5000 mg/kg (Rat)	=13g/kg (Rabbit)	>7559 ppm (Rat) 6h
Isopropyl Alcohol 67-63-0	=1870 mg/kg (Rat)	=4059 mg/kg (Rabbit)	=72600 mg/m <sup>3</sup> (Rat) 4h
Ammonium hydroxide 1336-21-6	= 350 mg/kg (Rat)	-	-
Ethyl Alcohol 64-17-5	=7060 mg/kg (Rat)	-	124.7 mg/L (Rat) 4h
Ammonium Sulfate 7783-20-2	=2840 mg/kg (Rat)	-	-
Direct Blue 86 1330-38-7	>5 g/kg (Rat)	-	-

**Information on physical, chemical and toxicological effects**

**Symptoms**

Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity**

Ethanol has been shown to be carcinogenic in long-term studies only when consumed as an alcoholic beverage. Group 3 IARC components are "not classifiable as human carcinogens".

Chemical Name	ACGIH	IARC	NTP	OSHA
Isopropyl Alcohol	-	Group 3	-	X

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107-98-2

Ethyl Alcohol 64-17-5	A3	Group 1	Known	X
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**Legend**

*ACGIH (American Conference of Governmental Industrial Hygienists)*  
*A3 - Animal Carcinogen*  
**IARC (International Agency for Research on Cancer)**  
*Group 1 - Carcinogenic to Humans*  
*Group 3 IARC components are "not classifiable as human carcinogens"*  
**NTP (National Toxicology Program)**  
*Known - Known Carcinogen*  
**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**  
*X - Present*

### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral)	4,342.00 mg/kg
ATEmix (dermal)	12,578.00 mg/kg
ATEmix (inhalation-dust/mist)	217.50 mg/L
ATEmix (inhalation-vapor)	101.63 mg/L

## 12 Ecological information

### Toxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Chemical Name	Endpoint Value	Species	Exposure time
1-Methoxy-2-propanol 107-98-2	4600-10000 mg/L LC50 static	Leuciscus idus	96 h
	20.8 mg/L LC50 static	Pimephales promelas	96 h
	23300 mg/L EC50	Daphnia magna	48 h
Isopropyl Alcohol 67-63-0	1000 mg/L EC50	Desmodesmus subspicatus	72 h
	1000 mg/L EC50	Desmodesmus subspicatus	96 h
	1400000 µg/L LC50	Lepomis macrochirus	96 h
	9640 LC50 flow-through	Pimephales promelas	96 h
	11130 mg/L LC50 static	Pimephales promelas	96 h
	13299 mg/L EC50	Daphnia magna	48 h
Ammonium hydroxide 1336-21-6	8.2 mg/L LC50	Pimephales promelas	96 h
	0.66 mg/L EC50	water flea	48 h
	0.66 mg/L EC50	Daphnia pulex	48 h
Ethyl Alcohol 64-17-5	12-16 mL/L LC50 static	Oncorhynchus mykiss	96 h
	13400-15100 mg/L LC50 flow-through	Pimephales promelas	96 h
	100 mg/L LC50 static	Pimephales promelas	96 h
Ammonium Sulfate 7783-20-2	18 mg/L LC50	Cyprinus carpio	96 h
	420 mg/L LC50 semi-static	Brachydanio rerio	96 h
	123-128 mg/L LC 50 semi-static	Poecilia reticulata	96 h
	126 mg/L LC50	Poecilia reticulata	96 h
	100 mg/L LC50	Primephales promelas	96 h



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250 mg/L LC50	Brachydanio rerio	96 h
460-1000 mg/L LC50 static	Leuciscus idus	96 h
5.2-8.2 mg/L LC50 static	Oncorhynchus mykiss	96 h
32.2-41.9 mg/L LC50 flow-through	Oncorhynchus mykiss	96 h
480 mg/L LC50 flow-through	Brachydanio rerio	96 h

#### Persistence and degradability

Not determined.

#### Bioaccumulative potential

Not determined.

#### Mobility in soil

Chemical Name	Partition Coefficient
1-Methoxy-2-propanol 107-98-2	-0.437
Isopropyl Alcohol 67-63-0	0.05
Ethyl Alcohol 64-17-5	-0.32
Ammonium Sulfate 7783-20-2	-5.1

#### Additional ecological information

**General notes:** Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**Other adverse effects:** Not determined.

### 13 Disposal considerations

#### Waste treatment methods

##### Disposal Recommendations

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

##### Uncleaned packaging

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

#### California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Isopropyl Alcohol 67-63-0	Toxic Ignitable

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Ammonium hydroxide  
1336-21-6

Toxic  
Corrosive

Ethanol  
64-17-5

Toxic  
Ignitable

Direct Blue 86  
1330-38-7

Toxic

## 14 Transport information

### DOT

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquids, n.o.s. (Isopropanol, 1-Methoxy-2-propanol)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Special precautions for user</b>	None
<b>Special provisions</b>	None
<b>Packaging exceptions</b>	None
<b>Packaging non bulk</b>	None
<b>Packaging bulk</b>	None

### IATA

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	Aerosols, flammable
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Environmental hazards</b>	None
<b>ERG Code</b>	N/A
<b>Special precautions for user</b>	None
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed
<b>Cargo aircraft only</b>	Allowed
<b>Packaging Exceptions</b>	None

### IMDG

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	AEROSOLS
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Environmental hazards</b>	
<b>Marine Pollutant</b>	This material may meet the definition of a marine pollutant
<b>EmS</b>	Not available



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<b>Special precautions for user</b> <b>Packaging Exceptions</b> <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	None None Not applicable
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### 15 Regulatory information

#### International Inventories

All ingredients are listed or exempt from listing on Chemical Substance Inventory

#### US Federal Regulations

##### CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ammonium hydroxide 1336-21-6	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

##### SARA 313

Chemical Name	CAS No.	Weight-%	SARA 313 – Threshold Values %
Isopropyl Alcohol	67-63-0	20-3	1.0
Ammonium hydroxide	1336-21-6	<5	1.0
Ammonium Sulfate	7783-20-2	<1	1.0
Direct Blue 86	1330-38-7	<1	1.0

##### CWA (Clean Water Act)

Chemical Name	Reportable Quantities	Toxic Pollutants	Priority Pollutants	Hazardous Substances
Ammonium hydroxide	1000 lb	-	-	X
Direct Blue 86		X		

#### US State Regulations

##### California Proposition 65

Chemical Name	California Proposition 65
Ethanol	Carcinogen Developmental

#### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
1-Methoxy-2-propanol 107-98-2	X	X	X
Isopropyl Alcohol 67-63-0	X	X	X
Ammonium hydroxide 1336-21-6	X	X	X

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Ethanol 64-17-5	X	X	X
Ammonium Sulfate 7783-20-2	-	X	X
Direct Blue 86 1330-38-7	X	-	X

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Date of Preparation / current revision:** 11/1/2017 /

**· Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))

Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))

Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org)) Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers