



# SAFETY DATA SHEET

Issue Date 01-February-2005

Revision Date 18-November-2020

Version 4

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

Product Name LINDAX 6

### Other Means of Identification

SDS # LC-057

### Recommended Use of the Chemical and Restrictions on Use

Recommended Use Catalyst solution

### Details of the Supplier of the Safety Data Sheet

#### Supplier Address

Lindau Chemicals, Inc.  
731 Rosewood Drive  
Columbia, SC 29201

### Emergency Telephone Number

#### Company Phone Number

Phone: 1-803-799-6863

Fax: 1-803-256-3639

#### Emergency Telephone

INFOTRAC 01-352-323-3500 (International)  
1-800-457-4280 (North America)

## 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** The information below, excluding flammability, relates to repeated and prolonged exposure, particularly to the vapor form of the substance. The supplier has indicated that eye exposure normally results in eye irritation.

### Classification

Acute Toxicity: Oral	Category 4
Acute Toxicity: Skin	Category 4
Acute Toxicity: Inhalation	Category 4
Flammable Liquids	Category 2
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Specific Target Organ Toxicity (Single Exposure)	Category 1

### Signal Word

**Danger**

### Hazard Statements

H302: Harmful if swallowed

H312: Harmful in contact with skin

H332: Harmful if inhaled

H225: Highly flammable liquid and vapor

H315: Causes skin irritation

H319: Causes serious eye irritation

H370: Causes damage to organs



**Appearance** Clear, amber liquid

**Physical State** Liquid

**Odor** Slight characteristic

#### **Precautionary Statements - Prevention**

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233: Keep container tightly closed.

P240: Ground and bond container and receiving equipment.

P241: Use explosion-proof equipment.

P242: Use non-sparking tools.

P243: Take action to prevent static discharge.

P260: Do not breathe fumes, vapor or spray.

P264: Wash face, hands and any exposed skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves, protective clothing and eye protection.

#### **Precautionary Statements - Response**

P305 + P351: IF IN EYES: Rinse cautiously with water for several minutes.

P338: Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P352: Wash with plenty of soap and water.

P332 + P313: If skin irritation occurs: Get medical advice/attention.

P363: Wash contaminated clothing before reuse.

P301 + P312: IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.

P330: Rinse mouth.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312: Call a POISON CENTER/doctor/physician if you feel unwell.

P308 + P311: If exposed or concerned: Call a POISON CENTER or doctor/physician.

P370 + P378: In case of fire: Use water spray (fog), dry chemical, CO<sub>2</sub> or alcohol-resistant foam to extinguish.

#### **Precautionary Statements - Storage**

P405: Store locked up.

P403 + P235: Store in a well-ventilated place. Keep cool.

#### **Precautionary Statements - Disposal**

P501: Dispose of contents/container to an approved waste disposal plant.

#### **Other Hazards**

Harmful to aquatic life with long lasting effects

Harmful to aquatic life

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Benzyltriethylammonium chloride	56-37-1	55-85
Methanol	67-56-1	15-45

\*\* 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

### First Aid Measures

<b>Inhalation</b>	Move person to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm and quiet. Get medical attention.
<b>Eye Contact</b>	Flush eyes with large amounts of water, lifting upper and lower lids occasionally. Get medical attention.
<b>Ingestion</b>	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call immediately a physician or your local Poison Control Center.
<b>Skin Contact</b>	Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

### Most Important Symptoms and Effects, both Acute and Delayed

<b>Symptoms</b>	Contact may cause skin irritation. Direct eye contact may cause itching, burning, redness and tearing. Inhalation may cause harm or distress to the respiratory system. Ingestion may cause gastrointestinal irritation.
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### Indication of any Immediate Medical Attention and Special Treatment Needed

<b>Note to Physicians</b>	Treat symptomatically. Treatment of overexposure should be directed toward the control of symptoms and be based on the clinical condition of the patient.
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## 5. FIRE-FIGHTING MEASURES

### Extinguishing Media

<b>Suitable Media</b>	Dry chemical, carbon dioxide (CO <sub>2</sub> ), water spray (fog), alcohol-resistant foam
<b>Unsuitable Media</b>	Straight streams

### Specific Hazards Arising from the Chemical

Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations distant from the material handling point.

<b>Hazardous Combustion Products</b>	Carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride, formaldehyde, uncombusted organics
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### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool tanks with water spray. After fire, flush area thoroughly with water. Do not allow runoff to enter drains or water courses.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

<b>Personal Precautions</b>	Use personal protective equipment as required (see Section 8). Persons not wearing protective equipment should be excluded from the area of the spill until clean-up has been completed. Eliminate or remove all sources of ignition. Ensure adequate ventilation.
<b>Environmental Precautions</b>	Avoid subsoil penetration. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

### Methods and Material for Containment and Cleaning Up

<b>Methods for Containment</b>	Ensure adequate ventilation. Stop spill at source, if safe to do. Dike area of spill to prevent spreading or entry into sewers, basements or confined areas. Use water spray or vapor suppressing foam to disperse vapors. Pump liquid to salvage tanks or containers.
<b>Methods for Cleaning Up</b>	Remaining liquid may be taken up on sand, clay, earth or floor absorbent material and shoveled into suitable containers for disposal. Clean up and dispose of material in accordance with federal, state and local regulations.

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

<b>Advice on Safe Handling</b>	Keep containers tightly closed. Keep containers upright to prevent leakage. Store in a cool, well-ventilated area. Do not transfer to unmarked containers. Do not breathe vapors. Avoid all possible sources of ignition. Ground and bond containers when transferring material.
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### Conditions for Safe Storage, Including any Incompatibilities

<b>Storage Conditions</b>	Keep containers tightly closed when not in use and store in a dry, cool and well-ventilated area. Avoid excessive temperatures.
<b>Packaging Materials</b>	Do not transfer to unmarked containers. Empty containers may retain product residue (liquid or vapor). Do not pressurize, cut or weld empty containers, and do not expose them to heat or ignition sources.
<b>Incompatible Materials</b>	Strong oxidizing agents, strong acids, strong bases, reactive metals

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
Methanol 67-56-1	TWA: 200 ppm STEL: 250 ppm (potential for cutaneous absorption)	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup> (skin notation)	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup> (potential for dermal absorption)

### Control Parameters

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits.

### Individual Protection Measures, such as Personal Protective Equipment

**Eye/Face Protection** Wear approved safety goggles. Eye-wash facilities should be readily available.

**Skin and Body Protection** Wear chemical resistant, impermeable gloves. Wear suitable protective clothing.

**Respiratory Protection** This product should be handled in well-ventilated areas. Avoid breathing the vapor. If natural ventilation is inadequate to maintain vapor levels below the occupational exposure standards, local exhaust ventilation may be necessary. If the Threshold Limit Value is exceeded, a NIOSH/MSHA approved air supply respirator is advised in absence of adequate environmental control.

**General Hygiene** Handle in accordance with good industrial hygiene and safety practice. Precautions should be taken as required to avoid vapor inhalation and contact with skin, body and eyes.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

<b>Physical State</b>	Liquid	<b>Odor</b>	Slight characteristic
<b>Appearance</b>	Clear, amber liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Light amber		
<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks/Method</u></b>	
<b>pH</b>	Not determined		
<b>Melting Point/Freezing Point</b>	Not determined		
<b>Boiling Point/Boiling Range</b>	64 °C (147 °F)	(ASTM D-86)	
<b>Flash Point</b>	12 °C (54 °F)	(Tag closed cup)	
<b>Evaporation Rate</b>	Not determined		
<b>Flammability (Solid, Gas)</b>	n/a-liquid		
<b>Upper Flammability Limit</b>	Not applicable		
<b>Lower Flammability Limit</b>	Not applicable		
<b>Vapor Pressure</b>	97.7 mm Hg	@ 20 °C (68 °F)	
<b>Vapor Density</b>	Not determined		
<b>Specific Gravity</b>	1.00	(water = 1) @ 25 °C (77 °F)	
<b>Water Solubility</b>	Soluble		
<b>Solubility in Other Solvents</b>	Not determined		
<b>Partition Coefficient</b>	Not determined		
<b>Autoignition Temperature</b>	Not determined		
<b>Decomposition Temperature</b>	Not determined		
<b>Kinematic Viscosity</b>	Not determined		
<b>Dynamic Viscosity</b>	Not determined		
<b>Explosive Properties</b>	Not determined		
<b>Oxidizing Properties</b>	Not determined		
<b>Additional Information</b>	Volatile by weight 30%		

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions

### Chemical Stability

Stable under recommended storage conditions

### Possibility of Hazardous Reactions

None under normal processing

**Hazardous Polymerization** Hazardous polymerization does not occur.

### Conditions to Avoid

Avoid heat, sparks, open flames and other ignition sources. Do not heat over 50°C.

### Incompatible Materials

Strong oxidizing agents, strong acids, strong bases, reactive metals

### Hazardous Decomposition Products

Carbon monoxide, carbon dioxide, formaldehyde, benzyl chloride, triethylamine, hydrogen chloride

## 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

#### Product Information

**Inhalation** Breathing product vapor should be avoided and may cause harmful effects. Breathing large amounts may be very harmful and may cause depression of the central nervous system, narcosis, coma or liver damage.

**Eye Contact** Exposure may cause serious eye irritation, including itching, burning, redness and tearing.

**Ingestion** May be harmful if swallowed.

**Skin Contact** Exposure causes skin irritation. Prolonged exposure may cause erythema or dermatitis.

#### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Benzyltriethylammonium chloride 56-37-1	2244 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	
Methanol 67-56-1	175 mg/kg ( estimated )	600 mg/kg ( estimated )	0.75 mg/L 4 hr (dusts/mists) ( estimated )

### 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-term and Long-term Exposure

**Mutagenicity** Not determined

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, ACGIH, IARC or NTP.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic life. Harmful to aquatic life with long-lasting effects.

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Benzytriethylammonium chloride 56-37-1	Desmodemus subspicatus > 100 mg/L 72 h (static)	Danio rerio 100 mg/L 96 h (static)	
Methanol 67-56-1	Selenastrum carpicornutum 22000 mg/L 96 h	Lepomis macrochirus 15400 mg/L 96 h (flow-through)	Daphnia magna 18260 mg/L 96 h

### Persistence and Degradability

Chemical Name	Biodegradability
Methanol 67-56-1	Aerobic result: 72% - rapidly biodegradable

### Bioaccumulation

Chemical Name	Bioaccumulation
Methanol 67-56-1	Cyprinus carpio (carp) – 72 d at 20°C Bioconcentration factor (BCF): 1.0

### Mobility

Chemical Name	Bioaccumulation
Methanol 67-56-1	Will not absorb in soil

### Other Adverse Effects

Chemical Name	Biochemical Oxygen Demand (BOD)	Chemical Oxygen Demand (COD)
Methanol 67-56-1	600–1120 mg/g	1420 mg/g

## 13. DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

#### **Disposal of Wastes**

Disposal should be in accordance with applicable federal, state and local laws and regulations. Incinerate in a suitable furnace at an EPA-approved facility or deposit in an approved landfill.

#### **Contaminated Packaging**

Disposal should be in accordance with applicable federal, state and local laws and regulations. Incinerate in a suitable furnace at an EPA-approved facility or deposit in an approved landfill.

Chemical Name	CAS Number	RCRA
Methanol	67-56-1	U154





**14. TRANSPORT INFORMATION**

**Shipping Name by Regulatory Entity**

DOT                                   Methanol solution

IMDG                                 Methanol solution

IATA                                 Methanol solution

Regulatory Information	UN Number	Classes	Packing Group	Label
DOT Classification Domestic	UN-1230	3	II	
DOT Classification International	UN-1230	3, 6.1	II	
IMDG Classification	UN-1230	3, 6.1	II	
IATA Classification	UN-1230	3, 6.1	II	

**Note**

Please see current shipping paper for most up-to-date shipping information, including exemptions and special circumstances.



## 15. REGULATORY INFORMATION

### International Inventories

#### Components Listed

TSCA, DSL/NDSL, EINECS/ELINCS, ENCS, IECSC, KECI, PICCS, TCSI, AICS, NZIoC

#### Legend:

*TSCA* - United States Toxic Substances Control Act Section 8(b) Inventory

*DSL/NDSL* - Canadian Domestic Substances List/Non-Domestic Substances List

*EINECS/ELINCS* - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

*ENCS* - Japan Existing and New Chemical Substances

*IECSC* - China Inventory of Existing Chemical Substances

*KECI* - Korea Existing Chemicals Inventory

*PICCS* - Philippines Inventory of Chemicals and Chemical Substances

*TCSI* - Taiwan Chemical Substance Inventory

*AICS* - Australian Inventory of Chemical Substances

*NZIoC* - New Zealand Inventory of Chemicals

### United States Federal Regulations

#### CERCLA

This product contains compounds designated as hazardous substances by EPA. Any release of these compounds (other than federally permitted release) in a quantity equal to or greater than the reportable quantity in any 24-hour period requires reporting to the National Response Center at 800-424-8802 (per 40 CFR Part 302). This product contains 15% to 45% methanol. The reportable quantity of methanol is 5000 pounds.

#### Clean Water Act (CWA)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### EPCRA

This product contains the following EPCRA Section 313 chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-know Act of 1986 (40 CFR 372). **This information must be included in all SDSs that are copied and distributed for this material.**

Chemical Name	CAS Number	Revision Date	De Minimis Concentration
Methanol	67-56-1	2007-07-01	1.0%

### United States State Regulations

#### California Proposition 65

This product contains the following Proposition 65 chemical:

Chemical Name	CAS Number	California Proposition 65
Methanol	67-56-1	Reproductive toxicity

### United States State Right-to-Know Regulations

Chemical Name	California	Florida	Massachusetts	Minnesota	New Jersey	Pennsylvania
Benzyltriethylammonium chloride 56-37-1					X	X
Methanol 67-56-1	X	X	X	X	X	X

**16. OTHER INFORMATION**

<b>NEPA</b>	<b>Health Hazards</b> 2	<b>Flammability</b> 3	<b>Instability</b> 0	<b>Special Hazards</b> Not determined
<b>HMIS</b>	<b>Health Hazards</b> 2	<b>Flammability</b> 3	<b>Physical Hazards</b> 0	<b>Personal Protection</b> Not determined

<b>Issue Date</b>	01-February-2005
<b>Revision Date</b>	18-November-2020
<b>Revision Note</b>	Revised classification
<b>GHS Version</b>	4

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**