



SAFETY DATA SHEET

Issue Date 11-June-2007

Revision Date 14-September-2020

Version 3

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name LINDRON 121

Other Means of Identification

SDS # LC-044

Recommended Use of the Chemical and Restrictions on Use

Recommended Use Resin 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: Inhalation	Category 4
Flammable Liquids	Category 3
Toxic to Reproduction	Category 2
Skin Corrosion/Irritation	Category 2
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

Signal Word

Warning

Hazard Statements

H332: Harmful if inhaled
H226: Flammable liquid and vapor
H361: Suspected of damaging fertility or the unborn child
H315: Causes skin irritation
H373: May cause damage to organs through prolonged or repeated exposure



Appearance Clear, colorless liquid

Physical State Liquid

Odor Moderate aromatic

Precautionary Statements - Prevention

P202: Do not handle until all safety precautions have been read and understood.
 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 or vapors.
 P264: Wash face, hands and any exposed skin thoroughly after handling.
 P271: Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves, protective clothing and eye protection.

Precautionary Statements - Response

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.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P370 + P378: In case of fire: Use water spray (fog), dry chemical, CO₂ or alcohol-resistant aqueous film-forming foam to extinguish.
 P308 + P313: If exposed or concerned: Get medical advice/attention.

Precautionary Statements - Storage

P403 + P235: Store in a well-ventilated place. Keep cool.
 P405: Store locked up.

Precautionary Statements - Disposal

P501: Dispose of contents/container in accordance with local, regional and national regulations.

Other Hazards

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Copolymer of Styrene and 2-Ethylhexylacrylate	25153-46-2	40–60
Xylene	1330-20-7	30–50
Ethyl benzene	100-41-4	< 10
Styrene	100-42-5	< 1

** 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

General	If exposed to this product in any way outside of normal handling and if there is concern about this exposure, get medical advice or attention.
Inhalation	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 immediately.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation occurs.
Ingestion	Rinse mouth thoroughly with water. Give a small amount of water or milk to drink. If swallowed, do not induce vomiting because of danger of aspirating liquid into lungs. If spontaneous vomiting occurs, keep head below hips to prevent aspiration. Monitor breathing. If person is drowsy or unconscious, place on left side with head down. Never give anything by mouth to an unconscious person. If possible, do not leave the person unattended. Call immediately a physician or your local Poison Control Center.
Skin Contact	Thoroughly wash exposed area with plenty of soap and water while removing all contaminated clothing, including shoes. Launder contaminated clothing before reuse. Get medical attention if skin is damaged or if skin irritation develops or persists.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms	May cause dermatitis or skin irritation in some individuals upon prolonged contact. Eyes may have symptoms of redness, itching, irritation and watering from overexposure. If ingested, may cause diarrhea or irritation to mouth, throat or gastrointestinal tract. May cause irritation to the mucous membranes and upper respiratory tract. May be absorbed through skin, causing symptoms similar to those of ingestion. Prolonged breathing of vapors may cause nausea, headache, weakness, dizziness, breathing difficulties and/or unconsciousness.
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Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians	Treat symptomatically. Treatment of overexposure should be directed toward the control of symptoms and be based on the clinical condition of the patient. Overexposure via inhalation may be associated with cardiac arrhythmia, which may occur if sympathomimetic drugs are given to the victim.
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5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Media	Dry chemical, carbon dioxide (CO ₂), alcohol-resistant aqueous film-forming foam, water spray (fog)
Unsuitable Media	Not determined

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. Vapors may form explosive mixtures in air. Static discharges may occur in this material.

Hazardous Combustion Products Carbon monoxide, carbon dioxide, reactive hydrocarbons, irritating vapors

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 surrounding fire-exposed equipment, containers, tanks and structures with water spray or stream. Take precautionary measures against static discharges.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions	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. Avoid breathing fumes or vapors.
Environmental Precautions	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

Methods for Containment	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. Pump liquid to salvage tanks or containers.
Methods for Cleaning Up	Spillage may be taken up with non-combustible, absorbent material. Collect resulting material in 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

Advice on Safe Handling	Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing fumes or vapors. Use only with adequate ventilation. Keep containers tightly closed. Keep containers upright to prevent leakage. Avoid all possible sources of ignition. Take precautionary measures against static discharges. Ground and bond containers when transferring material. Use non-sparking tools and explosion-proof equipment.
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Other Precautions

Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperatures and pressures, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published autoignition temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

Electrostatic discharge may provide an ignition source for flammable liquids. The organic solvents in this product are considered nonconductive, and an additive is included in the formulation to increase the product's conductivity to greater than 100 picosiemens per meter. Other precautions may be required depending on specific conditions of storage and transfer. For guidance on preventing electrostatic ignition, consult NFPA 77, Recommended Practice on Static Electricity (2007), API Recommended Practice (2003), Protection Against Ignitions Arising out of Static, Lightning and Stray Currents (2008).

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions	Keep containers tightly closed when not in use and store in a dry, cool and well-ventilated area. Avoid excessive temperatures.
Packaging Materials	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.
Incompatible Materials	Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
Xylene 1330-20-7	TWA: 100 ppm TWA: 434 mg/m ³ STEL: 150 ppm STEL: 651 mg/m ³	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 150 ppm STEL: 655 mg/m ³	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 150 ppm STEL: 655 mg/m ³
Ethyl benzene 100-41-4	TWA: 100 ppm STEL: 125 ppm	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³	TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³ IDLH: 800 ppm
Styrene 100-42-5	TWA: 20 ppm STEL: 40 ppm	TWA: 100 ppm STEL: 200 ppm	TWA: 50 ppm TWA: 215 mg/m ³ STEL: 100 ppm STEL: 425 mg/m ³ IDLH: 700 ppm

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 Ensure adequate ventilation, especially in confined areas. If applicable, use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels below recommended exposure limits. Wear appropriate breathing apparatus if air renewal is not sufficient to maintain vapor concentrations below threshold limit values.

General Hygiene Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Liquid	Odor	Moderate aromatic
Appearance	Clear, colorless liquid	Odor Threshold	Not determined
Color	Colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks/Method</u>
pH	Not determined	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	137–140 °C (279–284 °F)	(ASTM D-86) (1 atm)
Flash Point	26 °C (79 °F)	(Tag closed cup)
Evaporation Rate	0.8	(butyl acetate = 1) @ 25 °C (77 °F)
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limit	7%	
Lower Flammability Limit	1% (approximate)	
Vapor Pressure	5.1 mm Hg	(ASTM 2879) @ 20 °C (68 °F)
Relative Vapor Density	3.7	(air = 1)
Specific Gravity	0.96	(water = 1) @ 25 °C (77 °F)
Water Solubility	Negligible	@ 25 °C (77 °F)
Solubility in Other Solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

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.
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Conditions to Avoid

Avoid heat, sparks, open flames and other ignition sources.

Incompatible Materials

Strong oxidizing agents

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Inhalation	Breathing small amounts during normal handling is not likely to cause harmful effects. Breathing large amounts may cause irritation of the nose, throat and respiratory tract, depression of the central nervous system, nausea, headache, dizziness, drowsiness or unconsciousness. Pre-existing lung disorders, such as asthma, may be aggravated by this material, causing shortness of breath, respiratory depression or coma.
Eye Contact	Exposure may cause mild eye irritation, including stinging, redness and tearing.
Ingestion	Ingestion in sufficient amounts may cause gastrointestinal irritation, resulting in nausea, vomiting and diarrhea, or depression of the central nervous system, resulting in nausea, headache, dizziness, drowsiness or unconsciousness.
Skin Contact	Exposure causes skin irritation or drying. Prolonged exposure may cause dermatitis, resulting in burning, redness, cracking or other skin damage. Pre-existing skin disorders may be aggravated by exposure to this material. Skin absorption is possible, but harmful effects are not expected from this route of exposure under normal conditions of handling and use.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Lindron 121	> 7000 mg/kg (estimated)	> 3600 mg/kg (estimated)	3.0 mg/L 4 h (dust / mist) (estimated)
Xylene 1330-20-7	4300 mg/kg (Rat)	> 1700 mg/kg (Rabbit)	5000 ppm (Rat) 4 h (dust / mist)
Ethyl benzene 100-41-4	3500 mg/kg (Rat)	15400 mg/kg (Rabbit)	4000 ppm (Rat) 4 h (vapors)
Styrene 100-42-5	5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	12.0 mg/L (Rat) 4 h (dust / mist)

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 May cause cancer

Chemical Name	International Agency for Research on Cancer	National Toxicology Program
Ethyl benzene 100-41-4	Group 2B Possibly carcinogenic to humans	
Styrene 100-42-5	Group 2A Probably carcinogenic to humans	Reasonably anticipated

STOT – Single Exposure Not determined

Aspiration Hazard Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Toxicity to Fish

Chemical Name	CAS No	Species	LC50 (mg/L)	Exposure (Method)
Xylene	1330-20-7	Pimephales promelas	13.40	96 h (flow-through)
		Pimephales promelas	23.53–29.97	96 h (static)
		Oncorhynchus mykiss	2.66–4.09	96 h
		Lepomis macrochirus	19.00	96 h
		Lepomis macrochirus	13.10–16.50	96 h (flow-through)
		Lepomis macrochirus	7.71–9.59	96 h (static)
Ethyl benzene	100-41-4	Poecilia reticulata	30.26–40.75	96 h (static)
		Pimephales promelas	12.10	96 h (flow-through)
		Oncorhynchus mykiss	14.00	96 h (static)
		Lepomis macrochirus	150.00	96 h (static)
		Cyprinodon variegatus	88.00	96 h
Styrene	100-42-5	Pimephales promelas	4.02	96 h (flow-through)
		Pimephales promelas	29.00	96 h (static)
		Lepomis macrochirus	25.05	96 h (static)
		Poecilia reticulata	58.75–95.32	96 h (static)

Toxicity to Algae/Aquatic Plants, Microorganisms and Crustacea

Chemical Name	Algae/aquatic plants EC50	Microorganisms EC50	Crustacea EC50
Xylene 1330-20-7	Pseudokirchneriella subcapitata	0.0084 mg/L 24 h	Daphnia magna 3.82 mg/L 48 h
	72 mg/L 14 d		Gammarus lacustris 0.6 mg/L 48 h
Ethyl benzene 100-41-4	Skeletonema costatum	9.68 mg/L 30 m	Daphnia magna 2.1 mg/L 48 h
	4.9 mg/L 72 h	96 mg/L 24 h	
Styrene 100-42-5	Selenastrum capricornutum	5.4 mg/L 5 m	Daphnia magna 4.7 mg/L 48 h
	4.9 mg/L 72 h		

Persistence and Degradability

Not determined

Bioaccumulation

Chemical Name	CAS No	Partition Coefficient (log P _{ow})
Xylene	1330-20-7	2.77–3.15
Styrene	100-42-5	2.95

Mobility

This product is insoluble in water.

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Disposal should be in accordance with applicable federal, state and local laws and regulations. Disposal can only occur in properly permitted facilities. This product, as shipped, is a hazardous waste upon disposal due to its ignitability, according to Federal Regulation 40 CFR 261.22. The transportation, storage and treatment of this material in disposal must be conducted in compliance with 40 CFR 262, 263, 264, 268 and 270.

Contaminated Packaging

Disposal should be in accordance with applicable federal, state and local laws and regulations.

Chemical Name	CAS No	RCRA Listing	RCRA – Basis for Listing
Xylene	1330-20-7	U239	Included in waste stream: F039

State of California

This product contains substances that are listed with the state of California as hazardous wastes.

Chemical Name	CAS No	California Hazardous Waste Status
Xylene	1330-20-7	Toxic / Ignitable
Ethyl benzene	100-41-4	Toxic / Ignitable
Styrene	100-42-5	Toxic / Ignitable




14. TRANSPORT INFORMATION

Proper Shipping Name by Regulatory Entity

DOT Flammable liquid, n.o.s. (contains xylene, ethyl benzene)

IMDG Flammable liquid, n.o.s. (contains xylene, ethyl benzene)

IATA Flammable liquid, n.o.s. (contains xylene, ethyl benzene)

Regulatory Information	UN Number	Class	Packing Group	Label
DOT Classification	UN-1993	3	III	
IMDG Classification	UN-1993	3	III	
IATA Classification	UN-1993	3	III	

Note

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

15. REGULATORY INFORMATION

International Inventories

Component 25153-46-2 Listed TSCA, DSL/NDSL, ENCS, IECSC, KECI, PICCS, TCSI, AICS, NZIoC
Other 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

EPCRA

This product contains the following EPCRA Section 313 chemicals 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 No	Weight-%	EPCRA 313 Threshold Value %
Xylene	1330-20-7	30-50	1.0
Ethyl benzene	100-41-4	< 10	0.1
Styrene	100-42-5	< 1	0.1

CERCLA

Chemical Name	CAS No	Hazardous Substances Reportable Quantity (RQ)
Xylene	1330-20-7	RQ 100 lb final RQ / RQ 45.4 kg final RQ
Ethyl benzene	100-41-4	RQ 1000 lb final RQ / RQ 454 kg final RQ
Styrene	100-42-5	RQ 1000 lb final RQ / RQ 454 kg final RQ

Clean Water Act (CWA)

Chemical Name	CAS No	CWA – Reportable Quantity	CWA – Hazardous Substances
Xylene	1330-20-7	100 lb / 45.4 kg	Listed
Ethyl benzene	100-41-4	1000 lb / 454 kg	Listed
Styrene	100-42-5	1000 lb / 454 kg	Listed

SARA 311/312

Chronic health hazard, fire hazard

United States State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS No	California Proposition 65
Ethyl benzene	100-41-4	Carcinogen
Styrene	100-42-5	Carcinogen

United States State Right-to-Know Regulations

Chemical Name	California	Florida	Massachusetts	Minnesota	New Jersey	Pennsylvania
Xylene 1330-20-7	X		X	X	X	X
Ethyl benzene 100-41-4	X		X	X	X	X
Styrene 100-42-5	X	X	X	X	X	X

16. OTHER INFORMATION**NEPA****Health Hazards**
Not determined**Flammability**
Not determined**Instability**
Not determined**Special Hazards**
Not determined**HMIS****Health Hazards**
2**Flammability**
3**Physical Hazards**
0**Personal Protection**
Not determined

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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