

Southern Lithoplate Inc.
Material Safety Data Sheet

HSD Developer

Section 1 - Chemical Product and Company Identification

MSDS Name: HSD Developer

Company Identification:

Southern Lithoplate Inc.
105 Jeffrey Way
Youngsville, N.Carolina. 27596

For information in North America, call: 919-556-9400

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7732-18-5	Water	>50	231-791-2
108-32-7	Propylene Carbonate	10-20	203-572-1
67-48-1	Choline Chloride	10-20	200-655-4
57-55-6	Propylene Glycol	1-5	200-338-0
9003-11-6	Methyl-oxirane polymer with oxirane	1-5	

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless or pale yellow liquid.

Warning! May cause eye and skin irritation.

Target Organs: Eyes, skin.

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Potential Health Effects

Eye: May cause eye irritation and inflammation.

Skin: May cause skin irritation, drying, defatting.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: N/A

Chronic: No information

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Inhalation of this product is unlikely, however in case of exposure, remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water, foam, dry chemical, or carbon dioxide.

Flash Point: Not applicable.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to

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waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Observe local, state and federal regulations regarding disposal.

Section 7 - Handling and Storage

Handling: Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse.

Storage: Store in a cool, dry place. Store in a tightly closed container. Storage at elevated temperatures may cause the release of propylene oxide and carbon dioxide that may lead to rupture of the container.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Water	none listed	none listed	none listed
Propylene carbonate	none listed	none listed	none listed
Propylene glycol	none listed	none listed	none listed
Choline Chloride	none listed	none listed	none listed
Methyl-oxirane polymer with oxirane	none listed	none listed	none listed

OSHA Vacated PELs: Principle ingredients: No OSHA Vacated PELs are listed for these chemicals.

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: colorless or pale yellow

Odor: odorless or slight odor

pH: 4.6 – 5.0 @25°C

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: ~212F.

Freezing/Melting Point: <32F

Decomposition Temperature: Not available.

Solubility: Soluble.

Specific Gravity/Density: 1.072 – 1.078

Volatile Organic Compounds (VOC) 1.73lb/gallon

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature and under normal storage and handling conditions. May release gas at elevated temperatures.

Conditions to Avoid: Incompatible materials, strong acids

Incompatibilities with Other Materials: None

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, nitrogen oxides, propylene oxide

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 7732-18-5: ZC0110000

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg;

RTECS#:

CAS# 108-32-7: FF9650000

LD50/LC50:

CAS# 108-32-7:

Draize test, rabbit, eye: 60 mg Moderate;

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Draize test, rabbit, skin: 500 mg Moderate;
Inhalation, rat: LC50 = >5 gm/m³;
Oral, mouse: LD50 = 20700 mg/kg;
Oral, rat: LD50 = 29100 uL/kg;
Skin, rabbit: LD50 = >20 mL/kg;

RTECS#:

CAS# 57-55-6: TY2000000

LD50/LC50:

CAS# 57-55-6:

Draize test, rabbit, eye: 100 mg Mild;
Draize test, rabbit, eye: 500 mg/24H Mild;
Oral, mouse: LD50 = 22 gm/kg;
Oral, mouse: LD50 = 20300 mg/kg;
Oral, rabbit: LD50 = 18500 mg/kg;
Oral, rat: LD50 = 20 gm/kg;
Skin, rabbit: LD50 = 20800 mg/kg;
Skin, rabbit: LD50 = 20800 mg/kg;

RTECS#:

CAS# 67-48-1: KH2975000

LD50/LC50:

CAS# 67-48-1:

Oral, mouse: LD50 = 3900 mg/kg;
Oral, rat: LD50 = 3400 mg/kg;

RTECS#:

CAS# 9003-11-6

LD50/LC50:

CAS# 9003-11-6:

Oral, rat: LD50 = >2000 mg/kg;

Skin irritation: rabbit, non-irritant (Draize test)

Eye irritation: rabbit, non-irritant (Draize test)

Carcinogenicity:

CAS# 108-32-7, CAS# 57-55-6, CAS# 67-48-1, CAS# 9003-11-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 57-55-6:

Epidemiology: No information found

Teratogenicity: An expert panel convened by the NTP's Center for the Evaluation of Risks to Human Reproduction concluded 2/13/03 that developmental and reproductive risks stemming from exposure to the chemicals propylene glycol and ethylene glycol are negligible.

Reproductive Effects: When propylene glycol was given at 30 percent in the diet, it affected reproduction in rates in rats. It has generally not affected fertility or reproduction, except at very high doses where effects could be attributed to

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nutritional deficiency.

Mutagenicity: DNA Inhibition: Subcutaneous, mouse = 8000 mg/kg.; Cytogenetic Analysis: Subcutaneous, mouse = 8000 mg/kg.; Cytogenetic Analysis: Hamster, Fibroblast = 32 gm/L.

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

CAS# 57-55-6

Ecotoxicity: Water flea Daphnia: EC50 > 10000 mg/L; 48 Hr; Unspecified Bacteria: Phytobacterium phosphoreum: EC50 = 710 mg/L; 30 min; Microtox test Fish: Goldfish: LC50 > 5000 mg/L; 24 Hr; Unspecified Fish: Guppy: LC50 > 1000 mg/L; 48 Hr; Unspecified If released to water, 1,2-propanediol is expected to degrade relatively rapidly via biodegradation. If released to soil, relatively rapid biodegradation should also occur. Significant leaching in soil can be predicted.

Environmental: If released to the atmosphere, it is degraded rapidly by reaction with photochemically produced hydroxyl radicals (typical half-life of 32 hr). Physical removal from air by rainfall is possible.

Physical: No information available.

Other: No information available.

CAS# 9003-11-6

Acute & prolonged toxicity to fish: Golden orfe/LC50 (96h): >100mg/L

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. In its original supplied form the product is not considered a hazardous waste.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	Not regulated as a hazardous material
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 7732-18-5; 108-32-7; 67-48-1; 57-55-6; 9003-11-6 are listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 108-32-7: immediate.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals listed are Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 57-55-6 can be found on the following state right to know lists:

Pennsylvania, Minnesota,

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California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations European Labeling in Accordance with EC Directives

Hazard Symbols:

XI

Risk Phrases:

R 36 Irritating to eyes

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 67-48-1: 1

Canada - DSL/NDSL

CAS# 7732-18-5; 108-32-7; 57-55-6; 67-48-1; 9003-11-6 are listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of Not controlled.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 108-32-7; 57-55-6; 67-48-1 are listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Revision Date 6/25/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Southern Lithoplate Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Southern Lithoplate Inc has been advised of the possibility of such damages.