SAFETY DATA SHEET

Issue Date 05-Apr-2022 **Revision Date** 05-Apr-2022 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name SL-3200

Other means of identification
Product Code 444
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use Dual Amine Steam/Condensate Return Line Treatment.
Uses advised against No information available

Manufacturer Address
Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

Emergency telephone number
Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Flammable Liquids	Category 4

Label elements

Emergency Overview

Danger

Hazard statements
Causes severe skin burns and eye damage
May cause respiratory irritation. May cause drowsiness or dizziness
Combustible Liquid

Appearance aqueous solution **Physical state** liquid **Odor** Amine

Precautionary Statements - Prevention
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Use only in well-ventilated areas
Keep away from flames and hot surfaces. - No Smoking.

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
Specific treatment (see Section 4 on this label)
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/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
In case of fire: Use water spray (fog), carbon dioxide (CO2), or Dry chemical.

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
2-Diethylaminoethanol	100-37-8	15	
Morpholine	110-91-8	10	

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Eye contact Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate medical attention.

Skin Contact Flush with water for 15 minutes. Get medical attention. Remove contaminated clothing and wash before reuse.

Inhalation Remove victim to fresh air. If breathing difficulty occurs or persists, get medical attention.

Ingestion Rinse mouth with water. Give water to dilute. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to a semi-comatose, comatose, convulsing or unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms Contact with the eyes or skin may cause severe irritation with possible burns. May cause permanent eye damage. Vapors are severely irritating to the respiratory tract and may produce coughing and throat pain. Ingestion may cause severe irritation and injury to the mouth, throat, and digestive tract, harmful if swallowed.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray (fog). Carbon dioxide (CO2). Dry chemical.

Unsuitable extinguishing media Solid stream of water may scatter and spread fire.

Specific hazards arising from the chemical
Dusts or fumes may form explosive mixtures in air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat. Thermal decomposition may lead to irritating vapors.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

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. Move containers from the fire area if you can do so without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate nonessential personnel. Ventilate area. Wear appropriate personal protection equipment. Remove all sources of ignition.

Environmental precautions See Section 12 for additional ecological information. Prevent spills from entering drains.

Methods for containment Completely contain spilled material with dikes or sand bags, etc.

Methods for cleaning up Recover as much material as possible into containers for disposal or reuse. Remaining material may be diluted with water and neutralized. Flush spill area with water. Neutralization products, both solid and liquid, must be recovered for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not get in eyes, on skin, or clothing. Do not breathe vapors or mists. Do not ingest. Wash thoroughly after handling. Wear protective clothing/equipment. Use with adequate ventilation. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed and properly labeled. Containers that have been emptied will retain product residue and should be handled as if they were full. Store in a cool, dry, well-ventilated place away from incompatible materials. Wash hands before eating, drinking, using tobacco, applying make-up or using the toilet. Do not store, use, and/or consume foods, beverages, tobacco in areas where this product is stored.

Incompatible materials Strong oxidizing agents. Strong acids. Halogens.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Diethylaminoethanol 100-37-8	TWA: 2 ppm S*	TWA: 10 ppm TWA: 50 mg/m^3 (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m^3 (vacated) S* S*	IDLH: 100 ppm TWA: 10 ppm TWA: 50 mg/m^3

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Morpholine 110-91-8	TWA: 20 ppm S*	TWA: 20 ppm TWA: 70 mg/m³ (vacated) TWA: 20 ppm (vacated) TWA: 70 mg/m³ (vacated) STEL: 30 ppm (vacated) STEL: 105 mg/m³ (vacated) S* S*	IDLH: 1400 ppm TWA: 20 ppm TWA: 70 mg/m³ STEL: 30 ppm STEL: 105 mg/m³

Appropriate engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear protective splash proof safety goggles. Additional full face protection is recommended if splashing is a possibility.

Skin and body protection If contact is anticipated, wear protective clothing appropriate to use conditions.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations 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		
Appearance	aqueous solution	**Odor**	Amine
Color	clear Pale amber	**Odor threshold**	No information available

Property	Values	Remarks • Method
pH	11.8	
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	150 - 175 deg F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	0.995	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents. Strong acids. Halogens.

Hazardous Decomposition Products
Carbon monoxide. Carbon dioxide (CO2). Thermal decomposition can lead to release of irritating gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation May cause irritation/burns of respiratory tract.

Eye contact Causes serious eye damage. Risk of serious damage to eyes.

Skin Contact Contact causes severe skin irritation and possible burns.

Ingestion Can burn mouth, throat, and stomach.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Diethylaminoethanol 100-37-8	= 1300 mg/kg (Rat)	= 1260 µL/kg (Rabbit)	-
Morpholine 110-91-8	= 1050 mg/kg (Rat)	= 310 mg/kg (Rabbit)	= 8000 ppm (Rat) 8 h

Information on toxicological effects

Symptoms No information available.

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

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.
Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-Diethylaminoethanol 100-37-8	30: 72 h Desmodesmus subspicatus mg/L EC50	1660 - 1920: 96 h Pimephales promelas mg/L LC50 flow-through 100 - 220: 96 h Leuciscus idus mg/L LC50 static	83.6: 48 h Daphnia magna Straus mg/L EC50
Morpholine 110-91-8	28: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	350: 96 h Lepomis macrochirus mg/L LC50 static 375 - 460: 96 h Oncorhynchus mykiss mg/L LC50 1000: 96 h Brachydanio rerio mg/L LC50 static	100: 24 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
2-Diethylaminoethanol 100-37-8	0.21
Morpholine 110-91-8	-2.55

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

DOT Regulated
UN/ID No. UN1760
Proper shipping name Corrosive liquid, N.O.S.
Hazardous ingredients (Diethylaminoethanol/Morpholine)
Hazard Class 8
Packing Group II

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

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
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Skin corrosion/irritation
Serious eye damage/eye irritation
Specific target organ toxicity (single exposure)
Flammable Liquids

CWA (Clean Water Act)
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)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2-Diethylaminoethanol 100-37-8	X	X	X
Morpholine 110-91-8	X	X	X

U.S. EPA Label Information

U.S. EPA Label Information
EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA	**Health hazards** 3	**Flammability** 1	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 3	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

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Disclaimer
The information provided in this Material 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 guidance 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