Safety Data Sheet
LIQUID SAFE

SDS Revision Date: **12/14/2022**

1. Identification

1.1. Product identifier

Product Identity	LIQUID SAFE
Alternate Names	60-203, Blended Formula, Liquid Safe Environmental Oil Spill Cleaner- 32 oz

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	It is used for lifting petroleum-based stains from concrete and black top surfaces. It is also ideal for degreasing parts and controlling odor.
Application Method	Read all precautions and instructions carefully before and after use.

1.3. Details of the supplier of the safety data sheet

Company Name	ComStar International Inc. 20-47 128th Street, College Point, NY 11356
Telephone No.	718-445-7900 800-328-0142 Fax: 718-353-5998

Emergency 24 HR response No: 1-800-424-9300 & 703-527-3887 CHEMTREC

Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure, or accident. Please direct all other inquiries to our customer service phone number

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Combustible Liquid. 4; H227	Flammable Liquid
Serious eye damage/eye irritation. 2A; H319	Serious eye damage/eye irritation

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Warning

[Hazard Statement]:

H227 Combustible Liquid

H319 Serious eye damage/eye irritation

[Prevention]:

Keep away from flames and hot surfaces. - No smoking.

Wash hands thoroughly after handling.

Wear protective gloves and eye/face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: get medical advice/attention.

In case of fire: Use water fog, dry chemical, CO2, or 'alcohol' foam for extinction.

[Response]:

P312: Call a poison center or doctor / physician if you feel unwell.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

[Storage]:

Store in a well-ventilated place. Keep cool.

[Disposal]:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Other hazards which do not result in classification:

May cause skin and respiratory irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
SURFACTANT PACKAGE CAS#: 94441-92-6 & 9016-45-9	<10	Not Classified	
BIO CONCRETE ENZYME CAS#:	>25	Not Classified	
D-LIMONENE CAS#: 5989-27-5	<5	Not Classified	

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation	Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. Get medical attention if symptoms persist.
Eyes	Immediately flush eye(s) with plenty of water. After initial flushing, remove any contact lenses if worn, and continue flushing for at least 5 to 10 minutes. If irritation persists, seek prompt medical attention.
Skin	Immediately flush with plenty of water, while removing contaminated clothing. If irritation persists, seek prompt medical attention. Launder clothing before reuse.
Ingestion	Call a physician or poison control center immediately. Induce vomiting only under the direct supervision of qualified medical personnel or a poison control center. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Overview	Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct skin contact may cause slight or mild, transient irritation. Inhalation of high concentrations may cause dizziness, disorientation, incoordination, narcosis, nausea, or narcotic effects.
Indication of any immediate medical attention and special treatment needed	Treat symptomatically

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Burning produces obnoxious and toxic fumes. Combustible liquid and vapor. Vapors are heavier than air and will settle and collect in low areas and pits, displacing breathing air.

Flammability classification (OSHA 29 CFR 1910.106)

Flammable Liquid - Category 4

Hazardous combustion products

Carbon oxides, formaldehyde and other irritating fumes and smoke.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

5.3. Special fire-fighting procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

6. Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, exposure controls and personal protection, for additional information on acceptable personal protective equipment.

6.2. Environmental precautions

Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

6.3. Methods and material for containment and cleaning up

Ventilate the area. Stop spill or leak at source if safely possible. Dike for water control. Use only non-sparking tools. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13).

6.4. Special spill response procedures

In case of transportation accident, contact TERRAPURE ENVIRONMENTAL at 1-800-567-7455. US CERCLA Reportable quantity (RQ): None.

7. Handling and storage

7.1. Precautions for safe handling

Wear protective gloves and eye/face protection. Keep away from heat and open flames. - No smoking. Use with adequate ventilation. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Wash with soap and water after handling. Keep away from acids and other incompatibles. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

7.2. Conditions for safe storage

Store in a cool, dry, well-ventilated area. Store away from areas of excessive heat, open flames, sparks, and other possible sources of ignition. Keep away from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

7.3. Incompatible materials

Strong oxidizing agents; Strong acids Strong bases; calcium hypochlorite: Perchloric acid.

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

CAS No.	Ingredient	Source	Value
		Supplier	No Established Limit
94441-92-6 & 9016-45-9	SURFACTANT PACKAGE	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

N/A	BIO CONCRETE ENZYME	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
5989-27-5	D-LIMONENE	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
94441-92-6 & 9016-45-9	SURFACTANT PACKAGE	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
N/A	BIO CONCRETE ENZYME	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
5989-27-5	D-LIMONENE	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory	Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Seek advice from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02
Eyes	Chemical goggles are recommended when there is a potential for splashing.
Skin /face protection	Wear appropriate chemical resistant gloves. Advice should be sought from glove suppliers.
Engineering Controls	Use sufficient mechanical ventilation to maintain exposures below the TLV. Use local exhaust if mist or spray is generated.
Other Work Practices	Emergency showers and eyewash facilities should be nearby. Wear a chemically resistant apron and long sleeves when dispensing, to prevent skin contact.
General hygiene considerations	Do not breathe mist or vapor. Avoid contact with eyes, skin and clothing. When using do not eat or drink. When using do not smoke. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Clear Liquid
Odor	Citrus Odor
Odor threshold	Not Measured
pH	Not Measured
Melting point / freezing point	-68.1°C(-90.58°F)
Initial boiling point and boiling range	230.4°C (446.72°F)
Flash Point	78°C (172.4°F)
Flashpoint (Method)	closed cup
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** 135°C(275°F): NA **Upper Explosive Limit:** 199°C(**390°F**): NA
Vapor pressure (Pa)	0.003 kPa
Vapor Density	5.58
Specific Gravity	0.95
Solubility in Water	Complete, Soluble in most organic solvents
Partition coefficient n-octanol/water (Log Kow)	1
Auto-ignition temperature	204°C (399.2°F)
Decomposition temperature	Not Measured

Viscosity (cSt)	25°C/77°F: NA
Volatiles (% by weight)	NA
Octanol/Water Partition Coefficient	NA

9.2. Other physical/chemical comments

Molecular formula: C8-H18-O3
Molecular Weight: 162.23 g/mol

10. Stability and reactivity

10.1. Reactivity

Not normally reactive.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Avoid excessive heat, sparks, and open flame. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents; Strong acids Strong bases; calcium hypochlorite; Perchloric acid. .

10.6. Hazardous decomposition products

No hazardous decomposition data available.

11. Toxicological information

Information on likely routes of exposure:

Routes of entry inhalation: Yes
Routes of entry skin & eye: Yes
Routes of entry Ingestion: Yes

Routes of exposure skin absorption: Yes

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure
Sign and symptoms Inhalation

If mists are inhaled, may cause tearing, general anesthesia, headache, coughing, respiratory stimulation, nausea, vomiting, pulmonary, kidney and liver damage.

Sign and symptoms ingestion
Ingestion can cause gastrointestinal irritation, nausea, and diarrhea.

Sign and symptoms skin

Direct skin contact may cause temporary redness.

Sign and symptoms eyes
Causes serious eye irritation. Symptoms may include redness, pain, tearing and conjunctivitis.

Potential Chronic Health Effects
Prolonged or repeated ingestion may cause bladder or kidney stones.

Mutagenicity
Not expected to be mutagenic.

Carcinogenicity
No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity
Not expected to cause reproductive effects.

Sensitization to material
Not expected to be a skin or respiratory sensitizer.

Specific target organ effects
According to the classification criteria of U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015), this product is not expected to cause target organ toxicity through single or repeated exposures.

Medical conditions aggravated by overexposure
Pre-existing skin, eye or nervous system disorders.

Synergistic materials
Not available.

Toxicological data
See below for toxicological data on the substance.

Chemical name	LC50(4hr) inh, rat	LD50 (Oral, rat)	LD50 (Rabbit, dermal)
D-LIMONENE 5989-27-5	0.136 mg/L (No mortality)	6560 mg/kg	2764 mg/kg

Other important toxicological hazards: CNS depression may result from extreme exposures.

12. Ecological information

12.1. Toxicity
No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr. LC50 fish, mg/l	NOEC / 21 day	M Factor
D-LIMONENE 5989-27-5	1300 mg/L (Bluegill sunfish)	N/Av	None.

Toxicity to Daphnia			
Ingredients	**EC50 / 48h**	**NOEC / 21 day**	**M Factor**
D-LIMONENE 5989-27-5	>100 mg/L (Daphnia magna)	N/Av	None.

Toxicity to Algae			
Ingredients	**EC50 / 96h or 72h**	**NOEC / 96h or 72h**	**M Factor**
D-LIMONENE 5989-27-5	> 100 mg/L/96hr (Green algae)	>100 mg/L (Green algae)	None

Persistence and degradability:
Readily biodegradable.

Bioaccumulation potential:
No data is available on the product itself

Ingredients	Partition coefficent n-octanol/ater (log Kow)	Bioconcentration factor (BCF)
D-LIMONENE 5989-27-5	1	1.4

Mobility in soil: No data is available on the product itself.

Other Adverse Environmental effects:
No data is available on the product itself

13. Disposal considerations

13.1. Waste treatment methods

Handling for Disposal: Handle waste according to recommendations in Section 7.

Methods of Disposal: Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	**DOT Hazard Class:** Not Applicable	**IMDG:** Not Applicable **Sub Class:** Not Applicable	**Air Class:** Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

14.5. Environmental hazards

IMDG Marine Pollutant: No

14.6. Special precautions for user

No further information

Special precautions for user: Keep away from flames and hot surfaces. - No smoking.
Environmental hazards: See ECOLOGICAL INFORMATION, Section 12: Not available.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

15. Regulatory information

US Federal Information:
Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	TSCA Inventory	CERCLA Reportable Quantity (RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical Toxic Chemical de minimus Concentration
D-LIMONENE 5989-27-5	Yes	N/Ap	N/Ap	No N/Ap

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:
The following chemicals are specifically listed by individual States:

Ingredients:

CAS # 5989-27-5

California Proposition 65

Listed- No

Type of Toxicity: N/Ap

State "Right to Know" Lists
CA No
MA No
MN No
NJ No
PA No
RI No

Canadian Information:
WHMIS Classification: Refer to Section 2 for a WHMIS Classification for this product. All ingredients are present on the DSL

International Information:
Components listed below are present on the following International Inventory list

Ingredients	CAS #	European EINECs	Australia AICS		Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	China IECSC
D-LIMONENE 5989-27-5	5989-27-5	203-961-6		Present	Present	(7)-97; (2)-422	KE-10466	Present	Present

16. Other information

Legend

ACGIH: American Conference of Governmental Industrial Hygienists
CA: California
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 CFR: Code of Federal Regulations
CNS: Central Nervous System
COC: Cleveland Open Cup
CSA: Canadian Standards Association
DOT: Department of Transportation
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
MA: Massachusetts
MN: Minnesota
N/Ap: Not Applicable

N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

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The opinions expressed are those of qualified experts within ComStar International Inc. We believe that the information contained is current as of the date of the Safety Data Sheet. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of ComStar International Inc., it is the user's obligation to determine the conditions of safe use of the product.

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