Version: 1.1

Effective Date: Mar-03-2020 Previous Date: Nov-18-2019



SAFETY DATA SHEET LIQUICLEAN 515 1GAL(4L)BTLBOX

1. Identification

Product identifier LIQUICLEAN 515 1GAL(4L)BTLBOX

Other means of identification

L code L026650

Recommended use Not available.

Recommended restrictions None known.

Company/undertaking identification

SUEZ WTS USA, Inc. 4636 Somerton Road Trevose, PA 19053

T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazardsCorrosive to metalsCategory 1Health hazardsSkin corrosion/irritationCategory 1Serious eye damage/eye irritationCategory 1

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye

damage. May cause respiratory irritation.

Precautionary statement

Prevention Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area. Wear eye protection/face protection.

Response Wash contaminated clothing before reuse. If swallowed: Rinse mouth. Do NOT induce vomiting. If

on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. Absorb spillage to prevent material

damage.

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

resistant container with a resistant inner liner.

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

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS#	Percent
N-hydroxyethylenediamine triacetic acid trisodium salt	139-89-9	2.5 - 10
Potassium carbonate	584-08-7	2.5 - 10
Sodium carbonate	497-19-8	2.5 - 10
Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts	119345-04-9	1 - 2.5

Composition comments

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and

delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Unsuitable extinguishing

media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray. Use standard firefighting procedures and consider the hazards of other involved materials.

Specific methodsUse standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Material name: LIQUICLEAN 515 1GAL(4L)BTLBOX

Methods and materials for containment and cleaning up

Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to

remove residual contamination.

Never return spills to original containers for re-use.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate

ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene

practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store in original tightly closed container.

8. Exposure controls/personal protection

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Splash proof chemical goggles. Face shield.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only

depend on its material but also on other quality features and is different from one producer to the

other. Glove selection must take into account any solvents and other hazards present.

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure

limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

Page: 3 / 9

equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Color Colorless to pale yellow

Physical state Liquid
Odor Mild

Initial boiling point and boiling

Odor threshold Not available.
pH (concentrated product) 12.5 Neat

pH in aqueous solution 11.4 (5% Solution) Melting point/freezing point 15 $^{\circ}$ F (-9 $^{\circ}$ C)

range

219 °F (104 °C)

Flash point Not applicable.

Evaporation rate Slower than Ether
Flammability (solid, gas) Not applicable.

Material name: LIQUICLEAN 515 1GAL(4L)BTLBOX

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

(/0)

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 18 mmHg Vapor pressure temp. 70 °F (21 °C)

Vapor density < 1 Relative density 1.25

Relative density temperature 70 °F (21 °C)

Solubility(ies)

Solubility (water) 100 %

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.Viscosity22 mPa.sViscosity temperature70 °F (21 °C)

Other information

Explosive properties

Oxidizing properties

Not explosive.

Not oxidizing.

Pour point

20 °F (-7 °C)

Specific gravity

1.248

VOC 0 % ESTIMATED

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous Hazardous polymerization does not occur.

reactions

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. Aluminum.

Hazardous decomposition

products

Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides. Hydrogen cyanide evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation May cause irritation to the respiratory system.

Skin contactCauses severe skin burns.Eye contactCauses serious eye damage.IngestionCauses digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including

blindness could result. May cause respiratory irritation.

Information on toxicological effects

Acute toxicity

Product Species Test Results

LIQUICLEAN 515 1GAL(4L)BTLBOX (CAS Mixture)

Acute

Dermal

LD50 Rabbit > 5000 mg/kg, (Calculated according to

GHS additivity formula)

Inhalation

LC50 Rat > 5 mg/l, 4 Hours, (Calculated according to

GHS additivity formula)

Oral

LD50 Rat > 5000 mg/kg, (Calculated according to

GHS additivity formula)

Components Species Test Results

Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, Sodium Salts (CAS 119345-04-9)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg

Oral

LD50 Rat > 5000 mg/kg

N-hydroxyethylenediamine triacetic acid trisodium salt (CAS 139-89-9)

Acute

Inhalation

LC50 Rat > 10.054 mg/l, 4 Hour

Oral

LD50 Rat 1780 mg/kg

Potassium carbonate (CAS 584-08-7)

Acute

Oral

LD50 Rat 1870 mg/kg

Sodium carbonate (CAS 497-19-8)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg

Oral

LD50 Rat 2800 mg/kg

Skin corrosion/irritation Causes severe skin burns.

Serious eye damage/eye Causes serious eye damage.

irritation

Respiratory or skin sensitization

Respiratory sensitization This product is not expected to cause respiratory sensitization. **Skin sensitization** This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Material name: LIQUICLEAN 515 1GAL(4L)BTLBOX

^{*} Estimates for product may be based on additional component data not shown.

Specific target organ toxicity -

single exposure

May cause respiratory irritation.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Based on available data, the classification criteria are not met.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity

Product		Species	Test Results		
LIQUICLEAN 515 1GAL(4L)BTLBOX (CAS Mixture)					
Aquatic					
Crustacea	LC50	Daphnia magna	282.8 mg/L, Static Renewal Bioassay, 48 H, (pH adjusted)		
	NOEL	Daphnia magna	200 mg/L, Static Renewal Bioassay, 48 H, (pH adjusted)		
Fish	LC50	Fathead Minnow	73.2 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted)		
		Rainbow Trout	107.2 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted)		
	NOEL	Fathead Minnow	50 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted)		
		Rainbow Trout	50 mg/L, Static Renewal Bioassay, 96 H, (pH adjusted)		

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated, 7.84

Sodium Salts

Bioconcentration factor (BCF)

3 Benzene, 1,1'-oxybis-, Tetrapropylene Derivs., Sulfonated,

Sodium Salts

Mobility in soil No data available. Other adverse effects Not available.

13. Disposal considerations

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the **Disposal instructions**

material under controlled conditions in an approved incinerator. Dispose of contents/container in

accordance with local/regional/national/international regulations.

Dispose in accordance with all applicable regulations. Local disposal regulations

D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel] Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

DOT

UN number

UN proper shipping name Caustic alkali liquids, n.o.s. (POTASSIUM HYDROXIDE, Sodium hydroxide)

Transport hazard class(es)

Class 8 Subsidiary risk Ш Packing group

Special precautions for user Not available.

ERG number 154

Material name: LIQUICLEAN 515 1GAL(4L)BTLBOX

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

UN number UN1719

UN proper shipping name CAUSTIC ALKALI LIQUID, N.O.S. (Potassium hydroxide; Sodium hydroxide)

Transport hazard class(es)

Class 8
Subsidiary risk Packing group III
Environmental hazards No.
ERG Code 154

Special precautions for user Not available.

Some containers may not be approved under IATA, please check BOL for exact container classification.

IMDG

UN number UN1719

UN proper shipping name CAUSTIC ALKALI LIQUID, N.O.S. (Potassium hydroxide; Sodium hydroxide)

Transport hazard class(es)

Class 8
Subsidiary risk Packing group III
Environmental hazards

Marine pollutant No.

EmS F-A, S-B

Special precautions for user Not available.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Material name: LIQUICLEAN 515 1GAL(4L)BTLBOX

Page: 7 / 9

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

chemical

Yes

Classified hazard Corrosive to metal Skin corrosion or irritation

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

LEAD (CAS 7439-92-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

Inventory status

Country(s) or regionInventory nameOn inventory (yes/no)*CanadaDomestic Substances List (DSL)YesCanadaNon-Domestic Substances List (NDSL)NoUnited States & Puerto RicoToxic Substances Control Act (TSCA) InventoryYes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

US state regulations

California Proposition 65



WARNING: WARNING: This product can expose you to chemicals including LEAD, which is known to the State

of California to cause cancer and birth defects or other reproductive harm. For more information go

to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

LEAD (CAS 7439-92-1) Listed: October 1, 1992

US - California Proposition 65 - CRT: Listed date/Developmental toxin

LEAD (CAS 7439-92-1) Listed: February 27, 1987

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

LEAD (CAS 7439-92-1) Listed: February 27, 1987

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

LEAD (CAS 7439-92-1) Listed: February 27, 1987

16. Other information, including date of preparation or last revision

Issue dateNov-18-2019Revision dateMar-03-2020

Version # 1.1

NFPA ratings Health: 3

Flammability: 0

Instability: 0

NFPA ratings



Material name: LIQUICLEAN 515 1GAL(4L)BTLBOX Page: 8 / 9

List of abbreviations CAS: Chemical Abstract Service Registration Number

ACGIH: American Conference of Governmental Industrial Hygienists

TWA: Time Weighted Average STEL: Short Term Exposure Limit

LD50: Lethal Dose, 50%

LC50: Lethal Concentration, 50% EC50: Effect Concentration, 50% NOEL: No Observed Effect Level COD: Chemical Oxygen Demand BOD: Biochemical Oxygen Demand

TOC: Total Organic Carbon

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

References: No data available

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 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.

Revision information Composition/information on ingredients: Composition comments

GHS: Classification

Prepared by This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

Material name: LIQUICLEAN 515 1GAL(4L)BTLBOX