CARUS®

SAFETY DATA SHEET

1. Identification

Product identifier CALCIQUEST® liquid

Other means of identification

SDS number -

Recommended use CALCIQUEST® liquid is an effective corrosion inhibitor and sequesterant for

use in potable and industrial water systems.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name CARUS CORPORATION

Address 315 Fifth Street, Peru, IL 61354, USA

Telephone 815 223-1500 - All other non-emergency inquiries about the product should be

directed to the company

E-mail salesmkt@caruscorporation.com
Website www.caruscorporation.com
Contact person Dr. Chithambarathanu Pillai

Emergency Telephone For Hazardous Materials [or Dangerous Goods] Incidents ONLY

(spill, leak, fire, exposure or accident), call CHEMTREC at

CHEMTREC®, USA: 001 (800) 424-9300

CHEMTREC®, Mexico (Toll-Free - must be dialed from within country):

01-800-681-9531

CHEMTREC®, Other countries: 001 (703) 527-3887

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise

classified (HNOC)

Not classified.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
TRADE SECRET	Proprietary	1 - 3

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in

percent by volume.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

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Rinse with water. Get medical attention if irritation develops and persists. Eye contact

Ingestion Rinse mouth. Get medical attention if symptoms occur. Direct contact with eyes may cause temporary irritation. Most important

symptoms/effects, acute and

delayed

Treat symptomatically.

Indication of immediate medical attention and special

treatment needed **General information**

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

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire-fighting equipment/instructions Move containers from fire area if you can do so without risk.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. 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 in original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling

Avoid inhalation and contact with skin and eyes. Wear appropriate personal protective equipment (See Section 8). Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store in original tightly closed container. Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits No exposure limits noted for ingredient(s).

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

Appropriate engineering

controls

General ventilation normally adequate.

Individual protection measures, such as personal protective equipment

Eye/face protection If contact is likely, safety glasses with side shields are recommended.

Skin protection

Hand protection For prolonged or repeated skin contact use suitable protective gloves.

Wear suitable protective clothing. Other

In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment. Respiratory protection

Wear appropriate thermal protective clothing, when necessary. Thermal hazards

General hygiene 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 considerations

equipment to remove contaminants.

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9. Physical and chemical properties

Colorless solution. **Appearance**

Liquid. Physical state **Form** Liquid. Color Colorless. None. Odor

Odor threshold Not available.

1% solution = 6.0 ± 0.5 рH

< 32 °F (< 0 °C) Melting point/freezing point Initial boiling point and boiling Not available.

range

Not available.

Evaporation rate Not available. Flammability (solid, gas) Not available. Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flash point

Flammability limit - upper

Not available.

(%)

Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available. Not available. Vapor pressure Vapor density Not available. 1.39±0.03 at 25°C Relative density

Solubility(ies)

Solubility (water) Completely soluble.

Partition coefficient

Not available.

(n-octanol/water)

Auto-ignition temperature Not available. Not available. **Decomposition temperature** Not available. **Viscosity**

10. Stability and reactivity

Reactivity The 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 will not occur.

reactions

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. Strong acids. Strong bases. **Hazardous decomposition** No hazardous decomposition products are known.

products

11. Toxicological information

Information on likely routes of exposure

Ingestion May cause discomfort if swallowed.

Revision date: -

Inhalation In high concentrations, vapors may be irritating to the respiratory system.

Skin contact Prolonged or repeated skin contact may cause irritation.

Issue date: 25-July-2014

Eye contact May cause eye irritation on direct contact.

Symptoms related to the physical, chemical and toxicological characteristics

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Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

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May cause discomfort if swallowed. **Acute toxicity**

Components **Species Test Results**

TRADE SECRET (CAS Proprietary)

Acute Other

480 mg/kg LD50 Mouse

Skin corrosion/irritation Prolonged contact may cause dryness of the skin.

Serious eye damage/eye

irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization No data available. Not a skin sensitizer. Skin sensitization

No data available to indicate product or any components present at greater than 0.1% are Germ cell mutagenicity

mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity No data available. Specific target organ toxicity -

single exposure

No data available.

Specific target organ toxicity -

repeated exposure

No data available.

Aspiration hazard Not classified.

12. Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the **Ecotoxicity**

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components **Species Test Results**

TRADE SECRET (CAS Proprietary)

Aquatic

Fish LC50 Rainbow trout, donaldson trout 840 mg/l, 96 hours

(Oncorhynchus mykiss)

The product is not expected to be readily biodegradable. Persistence and degradability

Bioaccumulative potential No data available for this product.

Not available. Mobility in soil

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

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

Dispose in accordance with all applicable regulations. Local disposal regulations

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

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

CALCIQUEST® liquid SDS US Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

US federal regulations

This product is not known to be 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.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

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

Not regulated.

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

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes

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Country(s) or region On inventory (yes/no)* Inventory name Europe European List of Notified Chemical Substances (ELINCS) Japan Inventory of Existing and New Chemical Substances (ENCS) Yes Korea Existing Chemicals List (ECL) Yes New Zealand New Zealand Inventory Yes **Philippines** Philippine Inventory of Chemicals and Chemical Substances Yes (PICCS)

Yes

Toxic Substances Control Act (TSCA) Inventory

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

Issue date 25-July-2014

Revision date Version # 01

United States & Puerto Rico

NFPA ratings



References HSDB® - Hazardous Substances Data Bank

Disclaimer

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and shall be the sole responsibility of the holder or user of the product.

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^{*}A "Yes" indicates this product complies 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).