

Liquid Low-P

SECTION 1: Identification

Product identifier**Product name:** Liquid Low-P**Product code:****Recommended use of the product and restriction on use****Relevant identified uses:** Industrial use as corrosion inhibitor**Uses advised against:** Not determined or not applicable.**Reasons why uses advised against:** Not determined or not applicable.**Manufacturer or supplier details****Manufacturer:****United States**

CTS Cement Manufacturing Corporation

12442 Knott St.

Garden Grove, CA 92841

800-929-3030

info@ctsceement.com

Emergency telephone number:**United States**

INFOTRAC 800-535-5053

Information Telephone Number 800-282-5828

SECTION 2: Hazard(s) identification

GHS classification:

Skin irritation, category 2

Eye irritation, category 2A

Label elements**Hazard pictograms:****Signal word:** Danger**Hazard statements:**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements:

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves, protective clothing, eye protection, face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention

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P337 + P313 - If eye irritation persists: Get medical advice attention.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 2943-75-1	Triethoxy(octyl)silane	< 20
CAS number: 69011-36-5	Isotridecanol, ethoxylated	< 2
CAS number: 100-37-8	2-diethylaminoethanol	< 1

Additional Information:

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200).

SECTION 4: First aid measures**Description of first aid measures****General notes:**

Remove contaminated or saturated clothing immediately and dispose of safely.

After inhalation:

If aerosol or mists are inhaled, take affected persons out into the fresh air. Possible discomforts include severe irritation of mucus lining (nose, throat, eyes), cough, sneezing and flow of tears. In case of persistent discomfort, obtain medical attention immediately.

After skin contact:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Obtain medical attention. Wash clothing before reuse. Destroy or thoroughly clean contaminated shoes before reuse.

After eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Do not allow contaminated water to contact the unaffected eye or face during irrigation of an affected eye.

Consult an ophthalmologist.

After swallowing:

If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention. Never administer anything by mouth to an individual who rapidly losing consciousness, unconscious or convulsing.

Most important symptoms and effects, both acute and delayed**Symptoms**

After absorbing large amount of substance, apply therapy for irritative effects. If substance has been swallowed, early endoscopy is recommended in order to assess mucosa lesions in the

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esophagus and stomach which may appear. If necessary, suck away leftover substance. Allergic reactions cannot be excluded. Apply treatment of allergic reaction if necessary.

Hazards

None known

Immediate medical attention and special treatment**Specific treatment:**

If required, therapy of irritative effect. If substance has been swallowed: Early endoscopy in order to assess mucosa lesions in the esophagus and stomach which may appear. If necessary, aspirate leftover substance.

SECTION 5: Firefighting measures**Extinguishing media****Suitable extinguishing media:**

Foam, water spray, Carbon dioxide (CO₂), dry powder

Unsuitable extinguishing media:

High volume water jet.

Specific hazards during fire-fighting:

Standard procedure for chemical fires.

Special protective equipment for firefighters:

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment.

Environmental precautions:

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

Methods and material for containment and cleaning up:

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7: Handling and storage**Precautions for safe handling:**

Handle and open container with care.

Conditions for safe storage, including any incompatibilities:**Advice on protection against fire and explosion**

Normal measures for preventive fire protection.

Storage

Keep containers tightly closed in a cool, well-ventilated place. Protect from frost. Always avoid temperatures of > 40°C. Do not store together with strong acids or bases.

Further information

Keep tightly sealed in original packing. Protect from freezing.

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SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Control parameters:

2-diethylaminoethanol		
CAS-No.	100-37-8	
Control parameters	2 ppm	Time Weighted Average (TWA):(ACGIH)
Control parameters	Can be absorbed through the skin.	Skin designation:(ACGIH)
Control parameters	Can be absorbed through the skin.	Skin designation:(OSHA Z1)
Control parameters	10 ppm 50 mg/m3	Permissible exposure limit:(OSHA Z1)
Control parameters	Can be absorbed through the skin.	Skin designation:(US CA OEL)
Control parameters	2 ppm 9.6 mg/m3	Time Weighted Average (TWA) Permissible Exposure Limit (PEL)(US CA OEL)

Other information

Hazardous components without workplace control parameters.

Biological limit values:

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

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. Biological monitoring may also be appropriate for some substances.

Appropriate engineering controls:

Provide adequate ventilation. Handle in accordance with good industrial hygiene and safety practices. If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. Do not breathe in vapors or aerosols. Avoid contact with the skin and the eyes.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

A safety shower and eyewash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Hand protection:

Glove material butyl-rubber
 Material thickness 0.5 mm
 Break through time > 480 min
 Glove material Fluorinated rubber (Viton)
 Material thickness 0.4 mm
 Break through time >= 480 min
 Selection of protective gloves to meet the requirements of specific workplaces.
 Suitability for specific workplaces should be clarified with protective glove manufacturers.

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The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials. Please observe that the daily duration of usage of a chemical protective glove is in practice far shorter due to the many influencing factors (e.g. temperature, mechanical strain on the glove material) than the permeation time determined acc. EN 374. The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use.

Respiratory protection:

In case of dusts/vapors/aerosols being formed or if the limit values like TLV are exceeded:

use respiratory equipment with suitable filter (filter type ABEK) or wear a self contained respiratory apparatus. Use only respiratory protection equipment with CE-symbol including four digit test number.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Note time limit for wearing respiratory protective equipment.

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use.

NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

General hygienic measures:

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work.

Remove contaminated or saturated clothing. Wash contaminated clothing before re-use.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties**

Appearance	Liquid; Milky-white Color
Odor	Almost odorless, slightly alcoholic
Odor threshold	Not available
pH	9.5-11.4 [DIN 38404-C5]
Melting point/freezing point	Not available
Initial boiling point/range	Not applicable
Flash point (closed cup)	>95°C
Evaporation rate	Not determined
Flammability (solid, gas)	Not available
Upper flammability/explosive limit	Not available
Lower flammability/explosive limit	Not available
Vapor pressure	Not applicable
Vapor density	Not applicable
Density	0.997-1.006 g/cm ³
Relative density	Not available
Solubilities	Partially soluble
Partition coefficient (n-octanol/water)	Not available
Auto/Self-ignition temperature	Not available
Decomposition temperature	2460°F (1350°C)
Dynamic viscosity	20.4 mPa.s
Kinematic viscosity	Not applicable

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Explosive properties	Not available
Oxidizing properties	Not available

Other information

VOC	172 g/L
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SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

Temperatures: <0 °C.

Incompatible materials:

Strong acids or bases

Hazardous decomposition products:

Ethanol in case of hydrolysis, alcohol formed by hydrolysis lowers the flash point of the product.

SECTION 11: Toxicological information

Information on toxicological effects

No toxicological studies are available on the mixture.

Acute inhalation toxicity

Acute toxicity estimate : > 200 mg/l / 4 h / vapor
 Method: Calculation method

Acute dermal toxicity

Acute toxicity estimate : > 5000 mg/kg
 Method: Calculation method

Skin corrosion/irritation

Assessment:

Causes skin irritation.

Serious eye damage/irritation

Assessment:

Causes eye irritation.

SECTION 12: Ecological information

Toxicity

No ecotoxicological studies are available on the mixture.

Persistence and degradability

Product data: No data available.

Bioaccumulative potential

Product data: No data available.

Mobility in soil

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Product data: No data available.

Results of PBT and vPvB assessment

Product data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities. Dispose of contents/container in accordance with local/regional/national/international regulations. Since empty containers retain product residue, follow SDS and label warnings even after container is emptied. Incorrect disposal or reuse of this container is illegal and can be dangerous.

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None



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SECTION 15: Regulatory information

United States regulations

OSHA

If listed below, chemical specific standards apply to the product or components:

Clean Air Act Section (112)

If listed below, components present at or above the de minimus level are hazardous air pollutants:

- None listed

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

Remarks This material does not contain any components with a SARA 302 RQ.

SARA 304 - Emergency Release Notification

Remarks This material does not contain any components with a section 304 EHS RQ.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Remarks This material does not contain any components with a CERCLA RQ.

SARA Title III Section 311/312 Hazard Categories

The product meets the criteria only for the listed hazard classes:

Acute Health Hazard

SARA Title III Section 313 Reportable Substances

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

Toxic Substances Control Act (TSCA)

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed

State Regulations

California Proposition 65

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Abbreviations and Acronyms:

ACC	American Chemistry Council
ACGIH	American Conference of Governmental Industrial Hygienists
ACS	Advisory Committee on Sustainability
ADI	Acceptable Daily Intake

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ASTM	American Society for Testing and Materials
ATP	Adaptation to Technical Progress
BCF	Bioconcentration factor
BOD	Biochemical oxygen demand
c.c.	closed cup
CAO	Cargo Aircraft Only
Carc	Carcinogen
CAS	Chemical Abstract Services
CDN	Canada
CEPA	Canadian Environmental Protection Act
CERCLA	Comprehensive Environmental Response – Compensation and Liability Act
CFR	Code of Federal Regulations
CMR	carcinogenic-mutagenic-toxic for reproduction
COD	Chemical oxygen demand
DIN	German Institute for Standardization
DMEL	Derived minimum effect level
DNEL	Derived no effect level
DOT	Department of Transportation
EC50	half maximal effective concentration
EPA	Environmental Protection Agency
ErC50	Reduction of Growth Rate
ERG	Emergency Response Guide Book
FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
GLP	Good Laboratory Practice
GMO	Genetic Modified Organism
HCS	Hazard Communication Standard
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO-TI	International Civil Aviation Organization- Technical Instructions
ICCA	International Council of Chemical Association
ID	Identification number
IMDG	International Maritime Dangerous Goods
ISO	International Organization For Standardization
LC50	50 % Lethal Concentration
LD50	50 % Lethal Dose
L(E)C50	LC50 or EC50
LOAEL	Lowest observed adverse effect level
LOEL	Lowest observed effect level
MARPOL	International Convention for the Prevention of Pollution from Ships
NFPA	National Fire Protection Association
NOAEL	No observed adverse effect level
NOEC	no observed effect concentration
NOEL	no observed effect level
o. c.	open cup
OECD	Organization for Economic Cooperation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PBT	Persistent, bioaccumulative, toxic
PEC	Predicted effect concentration
PNEC	Predicted no effect concentration
RQ	Reportable Quantity
SDS	Safety Data Sheet
STOT	Specific Target Organ Toxicity
UN	United Nations



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vPvB	very persistent, very bioaccumulative
voc	volatile organic compounds
WHMIS	Workplace Hazardous Materials Information System
WHO	World Health Organization

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal 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, unless specified in the text. The responsibility to provide a safe workplace remains with the user. An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.

NFPA: 3-0-0

HMIS: 2-1-0*

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End of Safety Data Sheet