



1 – PRODUCT IDENTIFICATION

PRODUCT NAME: CL ELITE 100

PRODUCT USE: Water Treatment

Uses advised against

Processes involving extreme heat use advised against.

Any use involving aerosol formation or vapour or dust release in excess of the assigned workplace exposure limits where workers are exposed without suitable respiratory protective equipment (RPE).

Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).

Processes where workers who may be pregnant or breastfeeding could potentially come into direct contact with the product.

The product is intended exclusively for industrial and professional use.

COMPANY:

Blue Ocean Solids, LLC

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24 HOUR EMERGENCY PHONE NUMBER: INFOTRAC: 1-800-535-5053 (NORTH AMERICA)

SDS DATE: 7/1/2020

SHELF LIFE: 2 years

2 – HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:



GHS03 Flame over circle

Ox. Sol. 3 H272 May intensify fire; oxidizer.



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.



GHS08 Health hazard

Repr. 1 H360 May damage fertility or the unborn child.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.



LABEL ELEMENTS

GHS LABEL ELEMENTS

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms GHS03, GHS06, GHS07, GHS08

Signal word Danger

Hazard-determining components of labeling:

- Sodium nitrite
- Tetrasodium (1-hydroxyethylidene)bisphosphonate

Hazard statements

- May intensify fire; oxidizer.
- Toxic if swallowed.
- Causes serious eye irritation.
- May damage fertility or the unborn child.

Precautionary statements

- Do not handle until all safety precautions have been read and understood.
- Take any precaution to avoid mixing with combustibles.
- Do not eat, drink or smoke when using this product.
- Wear protective gloves/protective clothing/eye protection/face protection.
- If swallowed: Immediately call a poison center/doctor.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Classification system:

NFPA ratings (scale 0 - 4)



- Health = 2
- Fire = 0
- Reactivity = 0

HMIS-ratings (scale 0 - 4)



- Health = *2
- Fire = 0
- Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

**3 – COMPOSITION/INFORMATION ON INGREDIENTS****Chemical characterization: Mixtures**

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
7632-00-0	Sodium nitrite	50 – 100%
3794-83-0	Tetrasodium (1-hydroxyethylidene)bisphosphonate	10 – 25%
1303-96-4	Disodium tetraborate, decahydrate	2.5 – 10%

4 – FIRST-AID MEASURES**Description of first aid measures****General information:**

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact:

DO NOT DELAY!

Immediately wash with water.

If skin irritation continues, consult a doctor.

After eye contact:

DO NOT DELAY!

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

DO NOT DELAY!

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Information for doctor:

Risk of pulmonary edema. Symptoms can appear later. Danger of methaemoglobin formation after ingestion of sodium nitrite.

Treatment: Treat according to symptoms (decontamination, vital functions), treat with toluonium chloride to reverse methaemoglobinanaemia.

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 – FIRE-FIGHTING MEASURES**Extinguishing media**

Suitable extinguishing agents: Water

Special hazards arising from the substance or mixture No further relevant information available.

Advice for firefighters**Protective equipment:**

Do not inhale explosion gases or combustion gases.

Wear self-contained respiratory protective device.

Wear fully protective suit.



6 – ACCIDENTAL RELEASES MEASURES

Personal precautions, protective equipment and emergency procedures

- Avoid formation of dust.
- Ensure adequate ventilation

Environmental precautions: Do not allow to penetrate the ground/soil.

Methods and material for containment and cleaning up:

- Pick up mechanically.
- Send for recovery or disposal in suitable receptacles.
- Do not use combustible materials such as paper towels to clean up spills.

Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 – HANDLING AND STORAGE

Handling:

Precautions for safe handling

- Prevent formation of dust.
- Ensure good ventilation/exhaustion at the workplace.
- Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.
- Safety showers and eye wash facilities should be available at the work area.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

- Unsuitable material for receptacle: aluminium.
- Do not store on combustible materials such as wooden floors or wooden pallets.
- Prevent any seepage into the ground.

Information about storage in one common storage facility:

- Store away from flammable substances.
- Do not store together with acids.

Further information about storage conditions:

- Keep receptacle tightly sealed.
- Store in cool, dry conditions in well-sealed receptacles.
- Protect from heat and direct sunlight.

Specific end use(s) No further relevant information available.



8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituent have no known exposure limits.

1303-96-4 Disodium tetraborate, decahydrate	
REL	Long-term value: 5 mg/m ³
TLV	Short-term value: 6* mg/m ³
	Long-term value: 2* mg/m ³
	*as inhalable fraction

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

- Do not breath dust
- Do not eat, drink, smoke or sniff while working.
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.
- Pregnant women should strictly avoid inhalation or skin contact.
- A safe system of work must be formulated and followed to ensure that workers who may be pregnant or breastfeeding do not come into direct contact with the product.
- A safe system of work must be formulated and followed to ensure safe working with this product.
- Relevant workers must receive suitable and sufficient training and supervision.

Breathing equipment:

- Use suitable respiratory protective device in case of insufficient ventilation.
- Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.



Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

Body protection:

Impervious protective clothing
Body protection must be chosen depending on product properties, activity and possible exposure.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Solid
Color:	Whitish
Odor:	Mild
Odor threshold:	Not determined

pH-value (10 g/l) at 20 °C (68 °F): 10 – 11

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not determined.

Decomposition temperature: Not determined.

Auto igniting: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapor Pressure: Not applicable.

Density: Not determined.

Relative Density: Not determined.

Vapor Density: Not applicable.

Evaporation Rate: Not applicable

Solubility in / Miscibility with Water: Soluble.

Partition Coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.

Solvent content:

VOC content: 0.0 g/l / 0.00 lb/gl



Other Information No further relevant information available.

10 – STABILITY AND REACTIVITY

Reactivity No further relevant information available.

Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials:

- Strong acids.
- Reducing agents
- Combustible materials.
- Organic solvents.
- Flammable materials

Hazardous decomposition products:

- Carbon monoxide and carbon dioxide
- Nitrogen oxides (NOx)

11 – TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:		
7632-00-0 Sodium nitrite		
Oral	LD50	180 mg/kg (rat)
1303-96-4 Disodium tetraborate, decahydrate		
Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)
Inhalative	LC50/4 h	>2.04 mg/l (rat)

Primary irritant effect:

on the eye: Irritating effect.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

- Toxic
- Irritant

Carcinogenic categories

IARC (International Agency for Research on Cancer)
None of the ingredients is listed.
NTP (National Toxicology Program)
None of the ingredients is listed.
OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.



12 – ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:

1303-96-4 Disodium tetraborate, decahydrate

EC50	133 mg/kg (daphnia)
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Persistence and degradability The organic portion of the product is biodegradable.

Behavior in environmental systems:

Bioaccumulative potential Product is not expected to bioaccumulate.

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Very toxic for fish

Additional ecological information:

General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

Very toxic for aquatic organisms

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 – DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation:

Recommended Hierarchy of Controls:

- Minimize waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Contact waste processors for recycling information.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

Uncleaned packagings:

Recommendation:

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are “empty,” may contain residues that can develop flammable and/or hazardous gases and vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 – TRANSPORT INFORMATION

UN-Number

DOT, ADR, IMDG, IATA

UN1500



UN proper shipping name	
DOT	Sodium nitrite (mixture)
ADR	1500 Sodium nitrite (mixture), ENVIRONMENTALLY HAZARDOUS
IMDG	SODIUM NITRITE (mixture), MARINE POLLUTANT
IATA	SODIUM NITRITE (mixture)
Transport hazard class(es)	
DOT	
Class	5.1 Oxidizing substances
Label	5.1, 6.1
ADR	
Class	5.1 Oxidizing substances
Label	5.1+6.1
IMDG	
Class	5.1 Oxidizing substances
Label	5.1/6.1
IATA	
Class	5.1 Oxidizing substances
Label	5.1 (6.1)
Packing Group	
DOT, ADR, IMDG, IATA	III
Environmental hazards:	Product contains environmentally hazardous substances:
Marine pollutant:	Sodium nitrite
Special marking (ADR):	Symbol (fish and tree)
Special precautions for user	Warning: Oxidizing substances
Danger code (Kemler):	56
EMS Number:	F-A,S-Q



Segregation groups	Nitrites and their mixtures
Stowage Category	A
Stowage Code	SG38 Stow "separated from" ammonium compounds. SG49 Stow "separated from" cyanides
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional Information: Not dangerous according to the above specifications.	
ADR	
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
IMDG	
Limited quantities (LQ)	5 kg
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
UN "Model Regulation":	UN 1500 SODIUM NITRITE, 5.1 (6.1), III, ENVIRONMENTALLY HAZARDOUS

15 – REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
Sara

Section 355 (Extremely hazardous substances):
None of the ingredient is listed.

Section 313 (Specific toxic chemical listing):
None of the ingredient is listed.

TSCA (Toxic Substances Control Act):
All ingredients are listed.

Proposition 65

Chemicals known to cause cancer:
None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.

Chemicals known to cause developmental toxicity:
None of the ingredients is listed.



Carcinogen Categories		
EPA (Environmental Protection Agency)		
1303-96-4	Disodium tetraborate, decahydrate	I (oral)
TLV (Threshold Limit Value established by ACGIH)		
1303-96-4	Disodium tetraborate, decahydrate	A4
NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		

GHS label elements

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Signal word Danger

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Hazard statements

- May intensify fire; oxidizer.
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Precautionary statements

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- Wear protective gloves/protective clothing/eye protection/face protection.
- If swallowed: Immediately call a poison center/doctor.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 – OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Date of preparation / last revision 7/1/2020

Abbreviations and acronyms:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)



VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Ox. Sol. 3: Oxidizing solids – Category 3
Acute Tox. 3: Acute toxicity – Category 3
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Repr. 1: Reproductive toxicity – Category 1