



1 – PRODUCT IDENTIFICATION

PRODUCT NAME: THERMAL ELITE 100NA

PRODUCT USE: Water Treatment

COMPANY:
 Blue Ocean Solids, LLC
 10664 Loveland-Madeira Road, #241
 Loveland, OH 45140
 419-367-3502 www.blueoceansolids.com

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

SDS DATE: 1/30/2024 **SHELF LIFE:** 2 years

2 – HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:



GHS07

Skin Irritatio. 2 H315 Causes skin irritation.
 Eye Irritation 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 GHS07

Signal word Warning

Hazard-determining components of labeling:

Sodium hydroxide

Hazard statements

H315 Causes skin irritation.
 H319 Causes serious eye irritation.

Precautionary statements

P280 Wear protective gloves / eye protection / face protection.
 P302+P352 If on skin: Wash with plenty of 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. P337+P313 If eye irritation persists: Get medical advice/attention.

Additional information: This product is classified based on test data.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 2
 Fire = 0
 Reactivity = 0



HMIS-ratings (scale 0 - 4)

HEALTH	2	Health = 2
FIRE	0	Fire = 0
REACTIVITY	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:		
71050-62-9	Phosphino-Carboxylic Acid (PCA)	5 – 10%
1310-73-2	Sodium hydroxide	5%

4 – FIRST-AID MEASURES

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

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

After skin contact:

- Immediately rinse with water.
- If skin irritation continues, consult a doctor.

After eye contact:

- Check for and remove any contact lenses.
- Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

- Rinse out mouth and then drink plenty of water.
- Do not induce vomiting; call for medical help immediately.
- If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Information for doctor: Treat symptomatically and supportively.

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:

- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Use fire fighting measures that suit the environment.

For safety reasons unsuitable extinguishing agents: Water with full jet



Special hazards arising from the substance or mixture

In case of fire, the following can be released:

- Carbon monoxide (CO)
- Toxic metal oxide smoke
- Nitrogen oxides (NOx)
- Phosphorous oxides

Advice for firefighters

Protective equipment:

- Do not inhale explosion gases or combustion gases.
- Wear self-contained respiratory protective device.
- Wear fully protective suit.

Additional information Cool endangered receptacles with water spray.

6 – ACCIDENTAL RELEASES MEASURES

Personal precautions, protective equipment and emergency procedures

- Ensure adequate ventilation
- Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

- Do not allow to penetrate the ground/soil.
- Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

- Send for recovery or disposal in suitable receptacles.
- Pick up mechanically.
- Ensure adequate ventilation.

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.

Protective Action Criteria for Chemicals

PAC-1:		
7757-83-7	Sodium sulphite	11mg/m ³
1310-73-2	Sodium hydroxide	0.5 mg/m ³
PAC-2:		
7757-83-7	Sodium sulphite	120 mg/m ³
1310-73-2	Sodium hydroxide	5 mg/m ³
PAC-3:		
7757-83-7	Sodium sulphite	710 mg/m ³
1310-73-2	Sodium hydroxide	50 mg/m ³



7 – HANDLING AND STORAGE

Handling:

Precautions for safe handling

- Prevent formation of dust.
- Ensure good ventilation/exhaustion at the workplace.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

- Prevent any seepage into the ground.
- Do not store in aluminum, copper, zinc containers.

Information about storage in one common storage facility:

- Store away from oxidizing agents.
- Store away from foodstuffs.
- Do not store together with acids.

Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

Storage class: 11

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 remaining constituent has no known exposure limits.

1310-73-2 Sodium hydroxide	
PEL	Long-term value: 2 mg/m ³
REL	Ceiling limit value: 2mg/m ³
TLV	Ceiling limit value: 2 mg/m ³
Additional Occupational Exposure Limit Values for possible hazards during processing:	
1310-73-2 Sodium hydroxide	
PEL	Long-term value: 2 mg/m ³
REL	Ceiling limit value: 2 mg/m ³
TLV	Ceiling limit value: 2 mg/m ³

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

Exposure controls

Personal protective equipment: Select PPE appropriate for the operations taking place taking into account the product properties.

General protective and hygienic measures:

- The usual precautionary measures for handling chemicals should be followed.
- Do not eat, drink, smoke or sniff while working.
- Take note of assigned Workplace Exposure Limits.
- 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.
- Do not inhale gases / fumes / aerosols.



Breathing equipment:

When dust/mist are present use a Particulate filter, type P2.

Protection of hands:



Protective gloves

Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

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:



Safety glasses with side-shields conforming to EN166.

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Body protection:

Protective work clothing

9 – PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Appearance:

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

pH-value (10 g/l) at 20 °C (68 °F):	11.5 (1%)
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Change in condition

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

Flash point:	Not applicable.
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Flammability (solid, gaseous):	Not determined.
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Decomposition temperature:	Not determined.
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Auto igniting:	Product is not self-igniting.
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Danger of explosion:	Product does not present an explosion hazard.
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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.
Other Information	NOTE: The physical data presented above are typical values and should not be construed as a specification.

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.
 To avoid thermal decomposition do not overheat.

Possibility of hazardous reactions
 Reacts with acids.
 May react violently with strong oxidizing agents.

Conditions to avoid No further relevant information available.

Incompatible materials: Strong acids and oxidizing agents

Hazardous decomposition products:
 Nitrogen oxides (NO_x)
 Carbon monoxide and carbon dioxide
 Sulfur oxides (SO_x)
 Toxic metal oxide smoke

11 – TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

· LD/LC50 values that are relevant for classification:		
7757-83-7 Sodium sulphite		
Oral	LD 50	> 2,000 mg/kg (rat)
Dermal	LD 50	> 2,000 mg/kg (rat)
Inhalative	LC50/4 h	> 5 mg/l (rat)
10124-56-8 Sodium metaphosphate		
Oral	LD50	> 2,000 mg/kg (rat)

Primary irritant effect:
 on the skin:
 Causes skin irritation.
 The classification is based on test data.
 on the eye:



Irritating effect.

The classification is based on test data.

Sensitization:

No sensitizing effects known.

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

Additional toxicological information:

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

Irritant ROUTES OF EXPOSURE: Can be absorbed into the body by inhalation and by ingestion.

Contains sulfites. Repeated or prolonged inhalation exposure to sulfites may cause asthma.

The symptoms of asthma often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Anyone who has shown symptoms of asthma due to sulfites or sulfur dioxide should avoid all further contact with this product.

Carcinogenic categories

IARC (International Agency for Research on Cancer)
None of the ingredients listed.

NTP (National Toxicology Program)
None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients are listed.

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **Specific target organ toxicity** - single exposure Based on available data, the classification criteria are not met.
- **Specific target organ toxicity** - repeated exposure Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 – ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:	
7757-83-7 Sodium sulphite	
EC50 (96 h)	89 mg/l (Bacteria)
10124-56-8 Sodium metaphosphate	
EC50 (96 h)	> 485 mg/l (Bacteria)

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.

Additional ecological information:



General notes:

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Water hazard class 1 (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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.

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 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/RID/ADN, IMDG, IATA Void

UN proper shipping name

DOT, ADR/RID/ADN, IMDG, IATA Void

Transport hazard class(es)

DOT, ADR/RID/AND, IMDG, IATA

Class Void

Packing Group

DOT, ADR, IMDG, IATA Void

Environmental Hazards:

Not applicable.

Special precautions for user

Not applicable

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.



UN "Model Regulation":	Void
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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 values have the value ACTIVE.

Proposition 65

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

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

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

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

Carcinogenicity Categories

EPA (Environmental Protection Agency)
None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)
None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients are listed.

GHS label elements

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

Hazard pictograms GHS07

Signal word Warning

Hazard-determining components of labeling:

Sodium hydroxide

Hazard statements

H315 Causes skin irritation.

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Precautionary statements

P280 Wear protective gloves / eye protection / face protection.
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P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

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 1/30/2024

Abbreviations and acronyms:

ADR: Accord relatif au transport international 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

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)

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

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

*** Data compared to the previous version altered.**