

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP CRYSTAL HEAT 1LB\_6CT

Material number : ZUCRY16

#### Manufacturer or supplier's details

Company : Zep Inc.

Address : 350 Joe Frank Harris Parkway, SE  
Emerson, GA 30137

Telephone : Compliance Services - 877-428-9937

#### Emergency telephone numbers

For SDS Information : Compliance Services - 877-428-9937

For a Medical Emergency : 877-541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency : CHEMTREC: 800-424-9300 - All Calls Recorded.  
In the District of Columbia 202-483-7616

#### Recommended use of the chemical and restrictions on use

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance	granules
Colour	light blue
Odour	odourless

#### GHS Classification

Skin corrosion : Category 1

Serious eye damage : Category 1

#### GHS label elements

Hazard pictograms :



Corrosion

Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**  
P260 Do not breathe dust or mist.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.  
P305 + P351 + P338 + P310 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.  
P363 Wash contaminated clothing before reuse.  
**Disposal:**  
P501 Dispose of contents/container in accordance with local regulation.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Hazardous components

Chemical name	CAS-No.	Concentration [%]
sodium hydroxide	1310-73-2	$\geq 30 - < 60$
sodium nitrate	7631-99-4	$\geq 10 - < 30$
sodium carbonate	497-19-8	$\geq 5 - < 10$
aluminium	7429-90-5	$\geq 5 - < 10$
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	$\geq 1 - < 5$

The exact percentages of disclosed substances are withheld as trade secrets.

### SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.  
Wash off immediately with plenty of water for at least 15 minutes.  
Remove contaminated clothing and shoes.  
Wash contaminated clothing before reuse.  
If skin irritation persists, call a physician.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

	<p>Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.</p>
If swallowed	<p>: Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.</p>
Most important symptoms and effects, both acute and delayed	<p>: Effects are dependent on exposure (dose, concentration, contact time). Effects are immediate and delayed. Symptoms may include blistering, irritation, burns, and pain. Causes severe skin burns and eye damage. Review section 2 of SDS to see all potential hazards.</p>
Notes to physician	<p>: Treat symptomatically. Symptoms may be delayed.</p>

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	<p>: Dry chemical Water spray jet Carbon dioxide (CO2) Alcohol-resistant foam</p>
Unsuitable extinguishing media	<p>: High volume water jet</p>
Specific hazards during firefighting	<p>: Do not allow run-off from fire fighting to enter drains or water courses.</p>
Hazardous combustion products	<p>: Carbon dioxide (CO2) Carbon monoxide Nitrogen oxides (NOx) Smoke</p>
Specific extinguishing methods	<p>: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.</p>
Further information	<p>: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.</p>
Special protective equipment for firefighters	<p>: Wear self-contained breathing apparatus for firefighting if necessary.</p>

### SECTION 6. ACCIDENTAL RELEASE MEASURES

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains, inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).  
Keep in suitable, closed containers for disposal.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid formation of respirable particles.  
Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Observe label precautions.  
Electrical installations / working materials must comply with the technological safety standards.  
No smoking.
- Materials to avoid : Do not store near acids.  
Oxidizing agents

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
sodium hydroxide	1310-73-2	C	2 mg/m3	ACGIH
		C	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z-1
		C	2 mg/m3	OSHA P0
		C	2 mg/m3	CAL PEL
aluminium	7429-90-5	TWA (Respirable)	5 mg/m3	NIOSH REL

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

		TWA (total)	10 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Total dust)	15 mg/m3	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3	OSHA P0
		TWA (Respirable fraction)	1 mg/m3	ACGIH
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m3	ACGIH

**Engineering measures** : effective ventilation in all processing areas

### Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection

: Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

: When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : granules

Colour : light blue

Odour : odourless

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

Odour Threshold	: No data available
pH	: 12.5 - 13.5, 1 %(as aqueous solution)
Melting point/freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: No data available
Evaporation rate	: Not applicable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: Not applicable
Relative vapour density	: No data available
Density	: Not applicable
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: not determined
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing. Third Party Data - Actual or Inferred

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### SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Dust may form explosive mixture in air. No decomposition if stored and applied as directed.
Conditions to avoid	: No data available
Incompatible materials	: Acids Oxidizing agents This product contains sodium hydroxide or potassium hydroxide that may corrode some soft metals and may react with tin, zinc, aluminum to form hydrogen gas.

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

Hazardous decomposition products : Carbon oxides  
Nitrogen oxides (NOx)

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Potential Health Effects

Aggravated Medical Condition : None known.

Symptoms of Overexposure : Effects are dependent on exposure (dose, concentration, contact time).  
Effects are immediate and delayed.  
Symptoms may include blistering, irritation, burns, and pain.  
Causes severe skin burns and eye damage.  
Review section 2 of SDS to see all potential hazards.  
Treat symptomatically. Symptoms may be delayed.

#### Carcinogenicity:

**IARC** Group 2A: Probably carcinogenic to humans  
sodium nitrate 7631-99-4

**ACGIH** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

#### Acute toxicity

##### Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Method: Calculation method

##### Components:

##### **sodium hydroxide:**

Acute dermal toxicity : Acute toxicity estimate Rabbit: 1,350 mg/kg

##### **sodium nitrate:**

Acute oral toxicity : LD50 Oral Rat: 1,267 mg/kg  
LD50 Oral Rabbit: 2,680 mg/kg

##### **sodium carbonate:**

Acute oral toxicity : LD50 Oral Rat: 4,090 mg/kg

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

Acute inhalation toxicity : LC50 Rat: 5,750 mg/l  
Exposure time: 2 h

### **aluminium:**

Acute oral toxicity : LD50 Rat: > 15,900 mg/kg

Acute inhalation toxicity : LC50 Rat: > 0.888 mg/l  
Exposure time: 4 h

### **Distillates (petroleum), hydrotreated heavy naphthenic:**

Acute oral toxicity : LD50 Rat: > 5,000 mg/kg

Acute inhalation toxicity : LC50 Rat: > 5 mg/l  
Exposure time: 4 h

Acute dermal toxicity : LD50 Rabbit: > 5,000 mg/kg

### **Skin corrosion/irritation**

#### **Product:**

Remarks: Extremely corrosive and destructive to tissue.

### **Serious eye damage/eye irritation**

#### **Product:**

Remarks: May cause irreversible eye damage.

### **Respiratory or skin sensitisation**

No data available

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

No data available

### **Reproductive toxicity**

No data available

### **STOT - single exposure**

No data available

### **STOT - repeated exposure**

No data available

### **Aspiration toxicity**

No data available

### **Further information**

#### **Product:**



# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

Remarks: No data available

### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Components:

##### **sodium hydroxide :**

Toxicity to fish : LC50 (Gambusia affinis (Mosquito fish)): 125 mg/l  
Exposure time: 96 h  
Test Method: static test

LC50 (Oncorhynchus tshawytscha (chinook salmon)): 152 mg/l  
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 40 mg/l  
Exposure time: 48 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 34 - 47 mg/l  
Exposure time: 48 h

EC50 (Crangon crangon (shrimp)): 33 - 100 mg/l  
Exposure time: 48 h

#### Persistence and degradability

No data available

#### Bioaccumulative potential

##### Product:

Partition coefficient: n-octanol/water : Remarks: No data available

##### Components:

##### **sodium nitrate :**

Partition coefficient: n-octanol/water : log Pow: -3.8 (25 °C)

#### Mobility in soil

No data available

#### Other adverse effects

No data available

##### Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S.

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life.

### **Components:**

#### **sodium hydroxide :**

Additional ecological information : Harmful to aquatic life.

## SECTION 13. DISPOSAL CONSIDERATIONS

### **Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

## SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):  
UN3262, Corrosive solid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II - Limited quantity

Transportation Regulation: IMDG (Vessel):  
UN3262, CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II - Limited quantity

Transportation Regulation: IATA (Cargo Air):  
UN3262, Corrosive solid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: IATA (Passenger Air):  
UN3262, Corrosive solid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II

Transportation Regulation: TDG (Canada):  
UN3262, CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II - Limited quantity

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

### SECTION 15. REGULATORY INFORMATION

**TSCA list** : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

#### CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium hydroxide	1310-73-2	1000	2785

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

**SARA 311/312 Hazards** : Skin corrosion or irritation  
Serious eye damage or eye irritation

**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:  
sodium nitrate 7631-99-4 25.1832 %

#### California Prop. 65



WARNING: This product can expose you to chemicals including quartz (SiO<sub>2</sub>), which is/are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### The components of this product are reported in the following inventories:

**DSL** All components of this product are on the Canadian DSL  
**TSCA** On TSCA Inventory

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

#### Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

### SECTION 16. OTHER INFORMATION

#### Further information

#### NFPA:

HEALTH	3
FLAMMABILITY	1
INSTABILITY	0
SPECIAL HAZARD.	

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme

#### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	1

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

### OSHA - GHS Label Information:

Hazard pictograms



Corrosion

Signal word

: **Danger:**

Hazard statements

: Causes severe skin burns and eye damage.

Precautionary statements

:

**Prevention:** Do not breathe dust or mist. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

# SAFETY DATA SHEET

## ZEP CRYSTAL HEAT 1LB\_6CT

Version 3.1

Revision Date 10/01/2023

Print Date 05/21/2025

**Disposal:** Dispose of contents/container in accordance with local regulation.

Version:	3.1
Revision Date:	10/01/2023
Print Date:	05/21/2025

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