

ZEP CRYSTAL HEAT DRAIN ZU

Version 1.1

Revision Date 04/20/2015

Print Date 06/24/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP CRYSTAL HEAT DRAIN ZU

Material number : ZUCRY2

Manufacturer or supplier's details

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

Telephone : 404-352-1680

Emergency telephone numbers**For SDS Information** : Compliance Services 1-877-428-9937**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

Note: This product is labeled as a consumer product in accordance with the United States Consumer Product Safety Commission regulations. The warnings presented below in this Safety Data Sheet (SDS) comply with the 2012 OSHA Hazard Communication Standard (GHS - Globally Harmonized System of Classification and Labeling). The requirements for the labeling and warnings of consumer products may differ from those required for GHS based hazard communication.

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance	granules
Colour	light blue
Odour	odourless

GHS Classification

Oxidizing solids : Category 3
 Skin corrosion : Category 1A
 Serious eye damage : Category 1
 Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS Label element

Hazard pictograms : 

Signal word : Danger

Hazard statements : H272 May intensify fire; oxidiser.
 H314 Causes severe skin burns and eye damage.
 H335 May cause respiratory irritation.

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Precautionary statements : **Prevention:**
 P210 Keep away from heat.
 P220 Keep/Store away from clothing/ combustible materials.
 P221 Take any precaution to avoid mixing with combustibles.
 P260 Do not breathe dust or mist.
 P264 Wash skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
 P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
 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 or doctor/ physician.
 P363 Wash contaminated clothing before reuse.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.

Disposal:
 P501 Dispose of contents/container in accordance with local regulation.

Potential Health Effects

Carcinogenicity:

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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 identified as a carcinogen or potential carcinogen by OSHA.

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

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Hazardous components

Chemical Name	CAS-No.	Concentration [%]
sodium hydroxide	1310-73-2	>= 30 - < 50
sodium nitrate	7631-99-4	>= 20 - < 30
sodium carbonate	497-19-8	>= 5 - < 10
aluminium	7429-90-5	>= 5 - < 10
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
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 : If skin irritation persists, call a physician.
Wash off immediately with plenty of water for at least 15 minutes.
If on clothes, remove clothes.
Wash contaminated clothing before re-use.
Take victim immediately to hospital.
- In case of eye contact : Remove contact lenses.
If eye irritation persists, consult a specialist.
Protect unharmed eye.
Keep eye wide open while rinsing.
Immediately flush eyes for at least 15 minutes. Get medical attention.
- If swallowed : Keep respiratory tract clear.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry chemical
Water spray jet
Carbon dioxide (CO₂)
Alcohol-resistant foam
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

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Hazardous combustion products	: Carbon dioxide (CO ₂) Carbon monoxide Nitrogen oxides (NO _x) Smoke
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	: 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.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Environmental precautions	: Prevent product from entering drains. 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	: Neutralise with acid. 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.

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Materials to avoid : Keep away from metals.
Do not store near acids.

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/m ³	ACGIH
		C	2 mg/m ³	NIOSH REL
		TWA	2 mg/m ³	OSHA Z-1
		C	2 mg/m ³	OSHA P0
aluminium	7429-90-5	TWA (Respirable)	5 mg/m ³	NIOSH REL
		TWA (total)	10 mg/m ³	NIOSH REL
		TWA (total dust)	15 mg/m ³	OSHA Z-1
		TWA (respirable fraction)	5 mg/m ³	OSHA Z-1
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (Inhalable fraction)	5 mg/m ³	ACGIH

Personal protective equipment

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

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

Eye protection : Safety goggles
Ensure that eyewash stations and safety showers are close to the workstation location.

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

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Appearance	: granules
Colour	: light blue
Odour	: odourless
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

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. No decomposition if stored and applied as directed. Dust may form explosive mixture in air.
Conditions to avoid	: no data available
Incompatible materials	: Acids Metals

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Hazardous decomposition products : Carbon oxides
Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate : 4,572 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

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

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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

sodium hydroxide:**sodium nitrate:****sodium carbonate:****aluminium:****Distillates (petroleum), hydrotreated heavy naphthenic:****STOT - single exposure**

no data available

STOT - repeated exposure

no data available

Aspiration toxicity

no data available

Further information**Product:**

Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

no data available

Persistence and degradability

no data available

Bioaccumulative potential**Product:**Partition coefficient: n- : Remarks: no data available
octanol/water**Components:****sodium nitrate :**|| Partition coefficient: n- : log Pow: **-3.8 (25 °C)**

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

Additional ecological information : no data available

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

Transportation Regulation: IATA (Cargo Air): UN3262, Corrosive solid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II
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Transportation Regulation: IATA (Passenger Air): UN3262, Corrosive solid, basic, inorganic, n.o.s., (SODIUM HYDROXIDE), 8, II
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Transportation Regulation: TDG (Canada): UN3262, CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, II
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SECTION 15. REGULATORY INFORMATION
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 : Acute Health Hazard
Fire Hazard

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

SARA 313 : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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

TSCA On TSCA Inventory
DSL This product contains one or several components that are not on the Canadian DSL nor NDSL.
AICS Not in compliance with the inventory
NZIoC Not in compliance with the inventory
PICCS Not in compliance with the inventory
IECSC Not in compliance with the inventory

Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

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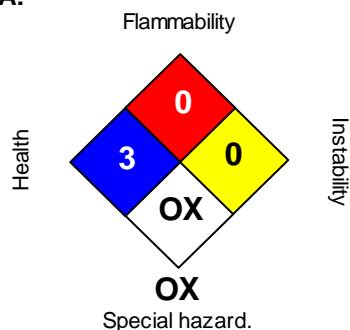
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Further information

NFPA:



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



Signal word

: **Danger:**

Hazard statements

: May intensify fire; oxidiser. Causes severe skin burns and eye damage. May cause respiratory irritation.

Precautionary statements

Prevention: Keep away from heat. Keep/Store away from clothing/ combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dust or mist. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/show er. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. 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 or doctor/ physician. Wash contaminated clothing before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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

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