To Our Customers:

The attached Safety Data Sheet (SDS) was prepared by the vendor of the product you purchased through one of our divisions. We used the manufacturer's electronic document directly or scanned a paper copy and generated a file for our automated SDS delivery system.

All statements, technical information, and recommendations contained therein are solely that of the manufacturer of the product. We at Zep Inc. did not verify the accuracy and completeness of the statements and do not warrantee or guarantee the information. We provide vendor SDSs to assist our customers in their compliance efforts. The attached document is in compliance with one of the respective country regulatory requirements noted below:

The OSHA Hazard Communication Standard (in the United States)
The Hazardous Products Regulations (in Canada)

We made every effort to deliver all of the information prepared by the manufacturer. We cannot anticipate all conditions under which this information will be used. If you have any questions about the statements on the SDS, please contact the company shown on the document.

Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team
Zep Inc.

SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY INFORMATION

Product Name(s):	PANGUARD Drain Ring; Dispenser Guard; Trench Clean		
Product Code(s):	CU-N, CU-N2, CU-S, CU-D, HC4/0.75, HC4/1.50, HC5/1.50, HC6/1.50, HC8/1.50, HC9/1.50, HC12/1.50, RC4/1.50, RC6/1.50, RC8/1.50, RC12/1.50, CU-DR6, DG-DP, CU-TC6, CU-TC9		
Uses:	Cleaner for condensate pans and related.		
Company:	Controlled Release Technologies, Inc.		
Address:	1016 Industry Drive; Shelby, NC 28152; USA		
Telephone Number:	(704) 487-0878	Fax Number:	(704) 487-0877
Emergency Telephone Number:	ChemTel Inc. 1-(800) 255-3924; + 01 (813) 248-0585 (International)		
Date Issued:	April 30, 2015	Date Revised:	April 3, 2023

This SDS complies with the OSHA Hazard Communication Standard 29CFR1910.1200 as revised in May 2012 (GHS). It may not meet requirements in other countries.

SECTION 2 HAZARDS IDENTIFICATION

GHS Classification:

DANGER

Eye Irritation (Category 1)
Skin Irritation (Category 2)
Acute Toxicity – Oral (Category 4)
Aquatic Acute Toxicity (Category 1)

GHS Hazard Statements:

Causes serious eye damage
Causes skin irritation
Harmful if swallowed
Very toxic to aquatic life

GHS Precautionary Statements:

Prevention:	Response:
Wash hands/skin thoroughly after handling.	Immediately call a poison center/doctor/ hospital.
Wear protective gloves/protective clothing/eye protection/face protection.	If swallowed: Call a poison center/doctor/ hospital if you feel unwell.
Avoid breathing dust.	Rinse mouth.
Do not eat, drink or smoke when using this product.	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Avoid release to the environment.	If on skin: Wash with plenty of water/soap.
	Take off contaminated clothing and wash it before reuse.

SECTION 2 HAZARDS IDENTIFICATION

Collect spillage.

Storage:

None.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

GHS Assessment:

Approximately 57% of this mixture consists of ingredient(s) of unknown acute toxicity.

Approximately 57% of the mixture consists of ingredient(s) of unknown hazards to the aquatic environment.

SECTION 3 COMPOSITION / INGREDIENTS

Component	CAS Number	EC Number	Concentration
Polymer	Proprietary	---	45.0 - 60.0%
Alkyl C12-18 dimethylbenzyl ammonium chloride	68391-01-5	269-919-4	5.0 - 20.0%
Alkyl C12-14 dimethylethylbenzyl ammonium chloride	85409-23-0	287-090-7	5.0 - 20.0%
PEG Cocamide	61791-08-0	612-392-6	1.0 - 10.0%
Triethanolamine	102-71-6	203-049-8	0.1 - 1.0%

Trade Secret Claims: Specific chemical identity and/or exact percentage (concentration) of components has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES

First Aid - Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention, if irritation develops.

First Aid - Skin: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately if irritation or rash develops and/or persists. Wash contaminated clothing before reuse.

First Aid - Ingestion: If swallowed and feel unwell, call a physician or poison control center. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

First Aid - Inhalation: If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Important Symptoms / Effects – Acute and Delayed: Tissue inflammation, skin/tissue ulceration or burns, nausea, difficulty breathing.

Advice to Physician: Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media: Treat surrounding material. Water spray, dry chemical, carbon dioxide, or foam is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazards:	This product is not flammable. This product may give rise to hazardous vapors in a fire. Vapors/fumes may be irritating, corrosive and/or toxic.
Protective equipment and procedures for fire-fighters:	Wear full protective clothing and self-contained breathing apparatus.
Additional Advice:	None.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Procedures:	Sweep up spilled material and transfer into suitable containers for recovery or disposal. Finally flush area with water.
Personal Precautions:	Wear suitable protective clothing.
Environmental Precautions:	Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

SECTION 7 HANDLING AND STORAGE

Handling:	Wear appropriate personal protection (See Section 8) when handling this material. The work area must be equipped with a safety shower and eye wash station. If exposed to the solid, avoid contact with skin and eyes. Wash thoroughly after handling.
Storage:	Keep container(s) tightly closed. Use and store this material at temperatures between 15.5ºC and 26.7ºC (60-80ºF) away from heat, direct sunlight and hot metal surfaces. Keep away from any incompatible materials (see Section 10).
Additional Advice:	Store in original container. Store as directed by the manufacturer.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Standards:	Exposure limits are listed below, if they exist.
Polymer:	(as Particulates not otherwise regulated) OSHA PEL: 15 mg/m3 TWA (total). OSHA PEL: 5 mg/m3 TWA (respirable fraction).
Alkyl C12-18 dimethylbenzyl ammonium chloride:	None.
Alkyl C12-14 dimethylethylbenzyl ammonium chloride:	None.
PEG Cocamide:	None.
Triethanolamine:	ACGIH TLV: 5 mg/m3 TWA.
Engineering Control Measures:	Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.
Respiratory Protection:	A NIOSH certified air purifying respirator with an dust/organic cartridge may be used under conditions where airborne concentrations are expected to exceed exposure limits.
Hand Protection:	The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation and skin damage (see glove manufacturer literature for information on permeability).

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Eye Protection:	Approved eye protection (safety glasses with side-shields or goggles) to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.
Body Protection:	Impervious clothing should be worn as needed to prevent skin contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Color:	Red
Odor:	Characteristic
Odor Threshold:	Not available.
pH:	4.79 - 6.39
Melting Point/Range (ºC/ºF):	Not available.
Boiling Point/Range (ºC/ºF):	Not available.
Flash Point (PMCC) (ºC/ºF):	Not flammable.
Evaporation Rate:	Not available.
Flammability / Explosivity Limits in Air (%):	Not available.
Vapor Pressure:	Not available.
Vapor Density (Air = 1):	Not available.
Relative Density:	> 1.0 (23.9ºC)
Solubility in Water:	Partly soluble (> 45%)
Partition Coefficient:	Not available.
Autoignition Temperature (ºC/ºF):	Not available.
Decomposition Temperature (ºC/ºF):	Not available.
Viscosity:	Not available.
Explosive Properties:	None.
Oxidizing Properties:	None.
Volatile Organic Content (VOC) (g/l):	≤ 25 g/l (as defined by 40CFR51.100)

SECTION 10 STABILITY AND REACTIVITY

Reactivity:	Product will not undergo additional reaction.
Stability:	Stable under normal storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Contact with incompatible materials, excessive heat.
Incompatibilities:	Oxidizing agents, strong acids, strong bases.
Hazardous Decomposition Products:	Oxides of carbon, oxides of nitrogen, oxides of silicon, amines, metal oxides, aliphatic and aromatic compounds, toxic by-products.

SECTION 11 TOXICOLOGICAL INFORMATION

If available, toxicity data for the product is given; otherwise component data is listed.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity:	This product may be harmful, if swallowed. (Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) Oral LD50 (rat) 400 mg/kg; Dermal LD50 (rabbit) > 2000 mg/kg (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) Oral LD50 (rat) 344 mg/kg; Dermal LD50 (rabbit) 2730 mg/kg (PEG Cocamide) Oral LD50 (rat) 1720 - 2740 mg/kg (Triethanolamine) Oral LD50 (rat) 6400 mg/kg; Dermal LD50 (rabbit) > 2000 mg/kg; Inhalation LC0 (rat) 1.8 mg/m3 (8 hr) (vapor) (no mortality at saturated atmosphere)
Skin Corrosion / Irritation:	The product may be irritating to skin based on Corrositex results. (Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) Corrosive to skin. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) Corrosive to skin (rabbit). (PEG Cocamide) May cause skin irritation. (Triethanolamine) Non-irritating to skin (rabbit). Mildly irritating to skin (> 5%) (human).
Serious Eye Damage / Irritation:	The product may be severely irritating to eyes with possible damage. (Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) Possibly corrosive to eyes. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) No data. (PEG Cocamide) May cause damage to eyes. (Triethanolamine) Slightly irritating to eye (rabbit).
Respiratory or Skin Sensitization:	The product is not expected to be dermally sensitizing. (Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) Not dermally sensitizing (guinea pig). (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) No data. (PEG Cocamide) No data. (Triethanolamine) Not dermally sensitizing (guinea pig). May occasionally cause dermal sensitization in certain sensitive individuals (human).
Mutagenicity:	This product is not expected to be mutagenic. (Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) No data. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) Not mutagenic (Ames test, in vitro mammalian chromosome aberration test and mammalian cell gene mutation assay). (PEG Cocamide) No data. (Triethanolamine) Not mutagenic (Ames test, in vitro mammalian chromosome aberration test, mammalian cell gene mutation assay and sister chromatid exchange assay).
Carcinogenicity:	This product is not expected to be carcinogenic. (Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) No data. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) No data. (PEG Cocamide) No data. (Triethanolamine) No dose-related increase of the incidence of tumor formation was observed in mice during a drinking water study (2% over 82 weeks).
Reproductive / Developmental Toxicity:	This product is not expected to be developmentally harmful. (Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) No data. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) In orally-dosed rats at

SECTION 11 TOXICOLOGICAL INFORMATION

	up to 25 mg/kg/day, the maternal NOEL was ca. 15 mg/kg/day based on mortality (there was no significant effect for the fetus). (PEG Cocamide) No data. (Triethanolamine) In an oral study on rats at up to 1000 mg/kg/day, lower implantation and reduced litter size were noted at only the highest dose.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Single Exposure:	(Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) No data. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) No data. (PEG Cocamide) No data. (Triethanolamine) Transient liver injury has been observed in animal studies.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Repeated Exposure:	(Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) No data. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) In a 95 day oral study in rats at up to 77 mg/kg/day, the NOEL was 31 mg/kg/day based on decreased body weights, reduced food consumption and irritation/damage to the gut mucosa. (PEG Cocamide) No data. (Triethanolamine) In a 90-day oral study with rats at up to 1000 mg/kg/day, no significant adverse effects were observed at the highest tested concentration (NOAEL was 1000 mg/kg/day). In a 90-day dermal study with rats, the NOAEL was reported to be 125 mg/kg/day based on inflammation, thickening of the skin at the application site and increased kidney weight.
Aspiration Hazard:	This product is not expected to be an aspiration hazard.
Additional Information:	None.

SECTION 12 ECOLOGICAL INFORMATION

If available, ecological data for the product is given; otherwise component data is listed.

Acute Ecotoxicity:	This product may be very toxic to aquatic species. (Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) LC50 (fish) 0.86 ppm/96 hr; EC50 (Daphnia magna) 0.006 mg/l/48 hr; LC50 (algae) 0.063 mg/l/96 hr. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) LC50 (Rainbow trout) ca. 1.06 mg/l/96 hr; EC50 (Daphnia magna) ca. 0.015 mg/l/48 hr; ErC50 (algae) ca. 0.026 mg/l/72 hr. (PEG Cocamide) LC50 (fish) 78.86 mg/l/96 hr; EC50 (Daphnia) 73.55 mg/l/48 hr; EC50 (algae) 2.68 mg/l/72 hr. (Triethanolamine) LC50 (Fathead minnow) 11800 mg/l/96 hr; EC50 (Daphnia magna) 610 mg/l/48 hr; EC50 (green algae) 512 mg/l/72 hr.
Mobility:	(Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) No data. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) Based on a measured Koc of 640,389, there is very little potential for soil mobility. (PEG Cocamide) No data. (Triethanolamine) Expected to have very high mobility based upon an estimated Koc of 7.
Persistence/Degradability:	(Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) Readily biodegradable. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) Readily biodegradable (95.5% in 28 days). (PEG Cocamide) Readily biodegradable. (Triethanolamine) Readily biodegradable (ca. 100% in 5 days).

SECTION 12 ECOLOGICAL INFORMATION

Bioaccumulation:	(Polymer) No data. (Alkyl C12-18 dimethylbenzyl ammonium chloride) No data. (Alkyl C12-14 dimethylethylbenzyl ammonium chloride) A BCF of 79 for Bluegill suggests bioconcentration in aquatic organisms is low. (PEG Cocamide) No data. (Triethanolamine) An estimated BCF of 3 suggests the potential for bioconcentration in aquatic organisms is low.
Other adverse effects:	None.

SECTION 13 DISPOSAL CONSIDERATION

Environmental precautions:	Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.
Product Disposal:	Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.
Container Disposal:	Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

SECTION 14 TRANSPORT INFORMATION

DOT Proper Shipping Name:	Not regulated
UN Number:	None.
UN Class:	None.
UN Packaging Group:	None.
Reportable Quantity:	None.
Marine Pollutant:	This product does not contain a listed marine pollutant; however, this product will meet the criteria of a marine pollutant under the IMDG Code.

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Consult current IATA Regulations prior to shipping by air.

SECTION 15 REGULATORY INFORMATION

US Toxic Substance Control Act:	All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
Canadian Domestic Substance List:	One or more components of this product are not listed on the Canadian Domestic List. Limited quantities may be permitted.
EU REACh:	One or more components of this product have not been pre-listed under REACh. Limited quantities may be permitted.
TSCA Sec.12(b) Export Notification:	This product does not contain a chemical at or above de minimis concentrations which requires reporting.
Canadian WHMIS Classification:	D.2.B This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the

SECTION 15 REGULATORY INFORMATION

	CPR.
Massachusetts Right-To-Know:	This product contains materials subject to disclosure under the Massachusetts Right-To-Know Law: - Triethanolamine
New Jersey Right-To-Know:	This product contains materials subject to disclosure under the New Jersey Right-To-Know Law: - Triethanolamine (4094)
Pennsylvania Right-To-Know:	This product contains materials subject to disclosure under the Pennsylvania Right-To-Know Law: - Triethanolamine
California Proposition 65:	This product contains materials which the State of California has found to cause cancer, birth defects or other reproductive harm: - Dioxane, 1.4- (< 0.0006%) - Acetaldehyde (< 0.0006%) - Ethylene oxide (< 0.0006%) - Methanol (< 0.0006%) - Diethanolamine (< 0.003%)
SARA TITLE III-Section 311/312 Categorization (40 CFR 370):	Immediate (acute) hazard (as of 2018, the EPA has adopted GHS hazard classifications)
SARA TITLE III-Section 313 (40 CFR 372):	This product does not contain materials which are listed in Section 313 at or above de minimis concentrations.
CERCLA Hazardous Substance (40 CFR 302)	This product does not contain materials subject to reporting under CERCLA and Section 304 of EPCRA.
Water Hazard Class (WGK):	This product is water-endangering (WGK=2).

Other Chemical Inventories:	Australia (AICS):	One or more components are not listed.
	China (IECSC):	One or more components are not listed.
	Japan (ENCS):	One or more components are not listed.
	Korea (KCI):	One or more components are not listed.
	Philippines (PICCS):	One or more components are not listed.

SECTION 16 OTHER INFORMATION

NFPA Rating - HEALTH:	1		
NFPA Rating - FIRE:	1		
NFPA Rating - REACTIVITY:	0		
NFPA Rating - SPECIAL:	NONE		
SDS Date Issued:	April 30, 2015		
SDS Current Version:	2.5	Version Date:	April 3, 2023
SDS Revision History:	v1.0 Initial version. v2.0 Reassessed product and associated classification (Section 2). v2.1 Added product code (Section 1). v2.2 Company logo changed. v2.3 Added product names (Section 1). v2.4 Added part number (Section 1). v2.5 Expanded the disclosure of the formulation (Section 3) and the related sections.		

SECTION 16 OTHER INFORMATION

Abbreviations:

GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
CAS#:	Chemical Abstract Services Number
ACGIH:	American Conference of Governmental Industrial Hygienists
OSHA:	Occupational Safety and Health Administration
NFPA:	National Fire Protection Association
DOT:	US Department of Transportation
RCRA:	US Resource Conservation and Recovery Act
TLV:	Threshold Limit Value
TWA:	Time-Weighted Average
PEL:	Permissible Exposure Limit
STEL:	Short Term Exposure Limit
WEEL:	Workplace Environmental Exposure Levels
AIHA:	American Industrial Hygiene Association
NTP:	National Toxicology Program
IARC:	International Agency for Research on Cancer
R:	Risk
S:	Safety
LD50:	Lethal Dose 50%
LC50:	Lethal Concentration 50%
EC50:	Effective Concentration 50%
BCF	Bioconcentration Factor
BOD:	Biological Oxygen Demand
Koc:	Soil Organic Carbon Partition Coefficient.
Tlm:	Median Tolerance Limit

Key References:

United States National Library of Medicine's TOXNET
Patty's Toxicology, 5th Edition
European Commission's Institute for Health and Consumer Protection
American Conference of Governmental Industrial Hygienists
International Agency for Research on Cancer
United States National Toxicology Program
United States Occupational Safety and Health Administration
United States Department of Transportation
Supplier Material Safety Data Sheets

Disclaimer:

The data contained herein is based on information that the company believes to be reliable, but no expressed or implied warranty is made with regard to the accuracy of such data or its suitability for a given situation. Such data relates only to the specific product described and not to such products in combination with any other product and no agent of the company is authorized to vary any of such data. The company and its agents disclaim all liability for any action taken or foregone on reliance upon such data.

Prepared by:

ChemOne Compliance, LLC