

Zerex™ SUPER FLUSH
ZXC01

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)
Product name	Zerex™ SUPER FLUSH	
Product code	ZXC01	

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid

WARNING! CAUSES EYE IRRITATION. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. MAY BE HARMFUL IF SWALLOWED.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin contact

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

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Inhalation

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Cough, Difficulty in breathing, lung edema (fluid buildup in the lung tissue), lung damage, damage to the mouth, throat, and/or airways

Target Organs

No data

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

Ethylenediamine tetraacetic acid (EDTA) and its sodium salts have been reported to cause birth defects in laboratory animals. Birth defects occurred only at exposure levels that harmed the pregnant animal. These effects are likely associated with zinc deficiency due to the removal of zinc from the body by EDTA.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components	CAS-No. / Trade Secret No.	Concentration
ETHYLENEDIAMINETETRAACETIC ACID, TETRASODIUM SALT	64-02-8	>=5-<10%

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4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: No information available.

Treatment: No information available.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Dry chemical, Carbon dioxide (CO₂), Water spray

Hazardous combustion products

Ammonia, carbon dioxide and carbon monoxide, nitrogen oxides (NO_x), toxic fumes

Precautions for fire-fighting

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause

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frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Other information

Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Exposure Guidelines

Contains no substances with occupational exposure limit values.

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist. Maintain eye wash station near work area.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

Discard gloves that show tears, pinholes, or signs of wear.

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Boiling point/boiling range	212 °F / 100 °C @ 1,013.33 hPa Calculated Phase Transition Liquid/Gas

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pH	(Average) 9.0
Flash point	not applicable
Vapour pressure	23.333 hPa @ 68 °F / 20 °C Calculated Vapor Pressure
Density	1.045 g/cm3

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

excessive heat

Incompatible products

aluminum, Copper, Copper alloys, Nickel, Oxidizing agents, reactive metals such as aluminum and magnesium, steel, Strong bases, strong mineral acids, Zinc

Hazardous decomposition products

carbon dioxide and carbon monoxide, nitrogen oxides (NOx), toxic fumes, Ammonia

Hazardous reactions

Product will not undergo hazardous polymerization.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

Acute oral toxicity - : no data available
Product

Acute oral toxicity - Components

ETHYLENEDIAMINETE : LD 50: 1,780 mg/kg Species: Rat
TRAACETIC ACID,
TETRASODIUM SALT

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Acute inhalation toxicity

Acute inhalation toxicity - Product : no data available

Acute inhalation toxicity - Components

ETHYLENEDIAMINETE : LOAEC: 30 mg/m³ Exposure time: 6 h Species: Rat
TRAACETIC ACID, Method: OECD Test Guideline 403 Remarks: Information
TETRASODIUM SALT given is based on data obtained from similar substances.

Acute dermal toxicity

Acute dermal toxicity - Product : no data available

Acute dermal toxicity - Components

ETHYLENEDIAMINETE : LD 50: > 5,000 mg/kg Species: Rabbit
TRAACETIC ACID,
TETRASODIUM SALT

Acute toxicity (other routes of administration)

Acute toxicity (other routes of administration) : no data available

12. ECOLOGICAL INFORMATION

Biodegradability

Biodegradability - Product : no data available

Bioaccumulation

Bioaccumulation - Product : no data available

Ecotoxicity effects

Toxicity to fish

Toxicity to fish - Product : no data available

Toxicity to fish - Components

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ETHYLENEDIAMINETE	: LC 50: 792 mg/l
TRAACETIC ACID,	Exposure time: 96 h
TETRASODIUM SALT	Species: Bluegill (<i>Lepomis macrochirus</i>)

Toxicity to daphnia and other aquatic invertebrates

Toxicity to daphnia and other aquatic invertebrates - Product	: no data available
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Toxicity to daphnia and other aquatic invertebrates - Components

ETHYLENEDIAMINETE	: EC 50: 140 mg/l
TRAACETIC ACID,	Exposure time: 48 h
TETRASODIUM SALT	Species: Water flea (<i>Daphnia magna</i>)

Toxicity to algae

Toxicity to algae - Product	: no data available
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Toxicity to algae - Components

ETHYLENEDIAMINETE	: ErC50: 2.77 mg/l
TRAACETIC ACID,	Exposure time: 72 h
TETRASODIUM SALT	Species: <i>Desmodesmus subspicatus</i> (green algae)

Toxicity to bacteria

Toxicity to bacteria - Product	: no data available
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13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

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REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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U.S. DOT - ROAD

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - ROAD

Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

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15. REGULATORY INFORMATION

California Prop. 65

Proposition 65 warnings are not required for this product based on the results of a risk assessment.

SARA Hazard Classification

SARA 311/312 Classification

Acute Health Hazard

SARA 313 Component(s)

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.

New Jersey RTK Label Information

WATER	7732-18-5
ETHYLENEDIAMINETETRAACETIC ACID, TETRASODIUM SALT	64-02-8

Pennsylvania RTK Label Information

WATER	7732-18-5
ETHYLENEDIAMINETETRAACETIC ACID, TETRASODIUM SALT	64-02-8

Notification status

US. Toxic Substances Control Act	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	n (Negative listing)
Japan. Kashin-Hou Law List	y (positive listing)
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	y (positive listing)

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China. Inventory of Existing Chemical Substances	y (positive listing)
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Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302)	615763 lbs
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Reportable quantity-Components

SODIUM HYDROXIDE	1310-73-2	1000 lbs
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	HMIS	NFPA
Health	2	1
Flammability	0	0
Physical hazards	0	
Instability		0
Specific Hazard	--	--

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).