

Safety Data Sheet

Product identifier used on the label: BD RADTOR FLUSH 6/32Z
Product Code: BD000204
Revision Date: 05-03-2024
Replaces: 10-31-2023

1. Identification

Product identifier used on the label:	BD RADTOR FLUSH 6/32Z
Product Code:	BD000204
Other means of identification:	
Other means of identification:	
Synonyms:	No data available
Recommended use of the chemical and restrictions on use:	
Recommended use:	Radiator Flush
Restrictions on use:	Uses other than those described above
Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:	Highline Warren LLC 8700 Trail Lake Drive West Suite 300 Memphis, TN 38125
Phone number:	+01 (901) 437-8615
E-mail address:	sds@highlinewarren.com
Emergency phone number:	CHEMTREC: +1 (800) 424-9300 International: +01 (703) 527-3887

2. Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

GHS Hazard Symbols:



GHS Classification:	Substance or mixture corrosive to metals Category 1 Skin Corrosion/Irritation Category 2 Serious Eye Damage/Eye Irritation Category 1 Hazardous to the aquatic environment - Acute Category 3
Signal Word:	Danger
Hazard Statements:	May be corrosive to metals; Causes skin irritation; Causes serious eye damage; Harmful to aquatic life
Precautionary Statements: Prevention:	Keep only in original container. Wash thoroughly after handling. Avoid

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release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response:

If on skin: Wash with plenty of water. 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. Specific treatment (see Sections 4 - 8 of Safety Data Sheet). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Absorb spillage to prevent material damage.

Storage:

Store in corrosive resistant container with a resistant inner liner.

Disposal:

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

Hazards not otherwise classified:

No data available

3. Composition/information on ingredients

Chemical Name	Common name and synonyms	CAS #	%
Sodium citrate	No data available	6132-04-3	5 - 10
Tetrasodium EDTA	No data available	64-02-8	1 - 5

4. First-aid measures

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation:

Immediately call a POISON CENTER/doctor.

Eye Contact:

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.

Skin Contact:

Store in corrosive resistant container with a resistant inner liner. If on skin: Wash with plenty of water. Specific treatment (see Sections 4 - 8 of Safety Data Sheet). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Immediately call a POISON CENTER/doctor.

Ingestion:

Do not induce vomiting and seek medical attention immediately. Provide medical care provider with this SDS.

Most important symptoms/effects, acute and delayed:

Causes skin and eye damage. Coughing.

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Indication of immediate medical attention and special treatment needed, if necessary:

Specific treatment (see Sections 4 - 8 of Safety Data Sheet). Immediately call a POISON CENTER/doctor.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:

Use alcohol resistant foam, carbon dioxide, or dry chemical when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the surface of the fire. Do not direct a stream of water into the hot burning liquid.

Unsuitable extinguishing media:

No data available

Specific hazards arising from the chemical:

Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire.

Hazardous combustion products:

Carbon dioxide, Carbon monoxide

Special protective equipment and precautions for fire-fighters:

Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Use methods for the surrounding fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid release to the environment.

Methods and materials for containment and cleaning up:

Absorb spillage to prevent material damage.

7. Handling and storage

Precautions for safe handling:

Keep only in original container.

Conditions for safe storage, including any incompatibilities:

Store in corrosive resistant container with a resistant inner liner.

Safe storage conditions:

Strong oxidizing agents

Materials to Avoid/Chemical Incompatibility:

8. Exposure controls/personal protection

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OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available:

Chemical component	OSHA PEL	ACGIH TLV	ACGIH STEL	IDLH	US WEEL
No data available					

Appropriate engineering controls: Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort.

Individual protection measures, such as personal protective equipment:

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

Respirator Type(s): None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Eye protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Wear appropriate protective gloves to prevent skin exposure.

General hygiene conditions: Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

9. Physical and chemical properties

Appearance (physical state, color etc.):

Physical state: Liquid

Color: Colorless

Odor: Mild

Odor Threshold: Not determined

pH: 11

Melting point/freezing point:

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Melting Point:	No data available
Freezing point:	No data available
Initial boiling point and boiling range (°C):	100
Flash Point (°C):	94
Evaporation Rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	
Upper flammability or explosive limits:	Not established
Lower flammability or explosive limits:	Not established
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	1.12
Solubility(ies):	Soluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition Temperature:	Not determined
Viscosity:	No data available

10. Stability and reactivity

Reactivity:	There are no known reactivity hazards associated with this product.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	None expected under standard conditions of storage.
Conditions to avoid (e.g., static discharge, shock, or vibration):	Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	Ammonia, Carbon dioxide, Carbon monoxide, Nitrogen containing gases

11. Toxicological information

Description of the various toxicological (health) effects and the available data used to identify those effects:

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Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):

Inhalation, Eye contact, Skin contact, Ingestion

Symptoms related to the physical, chemical and toxicological characteristics:

Causes skin and eye damage. Coughing.

Delayed and immediate effects and also chronic effects from short- and long-term exposure:

Ingestion:

May be harmful if swallowed. Estimated to be 2.0 - 5.0 g/kg.

Skin Contact:

Causes skin irritation.

Inhalation:

Likely to be practically non-toxic based on animal data.

Eye Contact:

Causes serious eye damage

Sensitization:

Non-hazardous under Respiratory Sensitization category. No data available to indicate product or components may be a skin sensitizer.

Mutagenicity:

No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.

Carcinogenicity:

None of the substances have been shown to cause cancer in long term animal studies. Not a carcinogen according to NTP, IARC, or OSHA.

Reproductive toxicity

Not known or reported to cause reproductive or developmental toxicity.

STOT-single exposure:

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

STOT-repeated exposure:

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

Aspiration hazard:

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

Other information:

None known.

Numerical measures of toxicity (such as acute toxicity estimates) Based on available data, the classification criteria are not met.

Is the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA:

Chemical Name	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen
There are no components that are known or reported to cause cancer.			

12. Ecological information

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Ecotoxicity (aquatic and terrestrial, where available): Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.

Ecological Toxicity Data:

Chemical Name	CAS #	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
Tetrasodium EDTA	64-02-8	No data available	EC50 (72h) Desmodesmus subspicatus (Green Algae) 1.01 mg/L	LC50 (96h) Pimephales promelas (Fathead Minnow) 59.8 mg/L LC50 (96h) Lepomis macrochirus (Bluegill) 41 mg/L

Persistence and degradability: No data available

Bioaccumulative potential: Bioconcentration is not expected to occur.

Mobility in soil: This material is expected to have high mobility in soil. It absorbs weakly to most soil types.

Other adverse effects (such as hazardous to the ozone layer): None known.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: Dispose of contents and container in accordance with local/regional/national/international regulations.

Contaminated packaging: Empty containers may contain residues. Dispose of in the same way as waste product.

14. Transport information

Carriage of dangerous goods by road (DOT), rail or inland waterways:

Exception: UN1760, CORROSIVE LIQUID, N.O.S.
(TETRASODIUMETHYLENEDIAMINETETRAACETATE), 8, III, LTD QTY

International carriage of dangerous goods by sea (IMDG/IMO):

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UN number:	UN1760
UN Proper shipping name:	CORROSIVE LIQUIDS, N.O.S.
Technical Name:	TETRASODIUMMETHYLENEDIAMINETETRAACETATE
Transport hazard class(es):	8
Packing group, if applicable:	III
Exception:	LTD QTY
EMS#:	F-A, S-B

International carriage of dangerous goods by air (IATA):

UN number:	UN1760
UN Proper shipping name:	CORROSIVE LIQUIDS, N.O.S.
Technical Name:	TETRASODIUMMETHYLENEDIAMINETETRAACETATE
Transport hazard class(es):	8
Packing group, if applicable:	III
Exception	LTD QTY

Environmental hazards (e.g., Marine pollutant (Yes/No)):

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): No data available

Special precautions which a user needs to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises:

15. Regulatory information

Safety, health and environmental regulations specific for the product in question:

TSCA Status: All components of this material are on the Active US TSCA Inventory or are exempt.

Regulated Components:

Chemical Name	CAS #	CERCLA	Sara EHS	Sara 313	U.S. HAP
Sodium citrate	6132-04-3	N	N	N	N
Tetrasodium EDTA	64-02-8	N	N	N	N

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Chemical Name	CAS #	California Prop 65 - Cancer	California Prop 65 - Dev. Toxicity	California Prop 65 - Reprod fem	California Prop 65 - Reprod male
Sodium citrate	6132-04-3	N	N	N	N
Tetrasodium EDTA	64-02-8	N	N	N	N

California Prop 65

No ingredient(s) requiring a warning under California Prop 65.

Chemical Name	CAS #	Massachusetts RTK List	New Jersey RTK List	Pennsylvania RTK List	Rhode Island RTK List	Minnesota Hazardous Substance List
Sodium citrate	6132-04-3	N	N	N	N	N
Tetrasodium EDTA	64-02-8	N	N	N	N	N

16. Other information, including date of preparation or last revision.

SDS Prepared by:	CDURSTON
Revision Date:	05-03-2024
Revision Number:	7
Reason for revision:	Activated by Document Formulation Generation
References:	No data available
Other Info:	No data available
Disclaimer:	This safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in the data sheet which we have received from outside sources and we believe the information to be correct, but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product in a safe manner and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.