



Material Safety Data Sheet

Universal Cooling System Flush

MSDS ID: 540

*** Section 1 - Chemical Product and Company Identification ***

Part Number: 540 (All Sizes)

Product Use: Cooling System Cleaner

Manufacturer Information

BG Products Inc.
701 S. Wichita Street
Wichita, KS 67213

Phone: (316) 265-2686
Fax: (316) 265-0718
Emergency # 1-800-424-9300 (CHEMTREC)

*** Section 2 - Hazards Identification ***

Emergency Overview

CAUTION

- EYE AND SKIN IRRITANT. Avoid contact with eyes, skin, and clothing.
- This product may be harmful by inhalation. Avoid prolonged breathing of fumes. Use with adequate ventilation.
- This product may be harmful if it is swallowed.

HMIS Ratings: Health: 1 Fire: 1 Physical Hazard: 0 Pers. Prot.: B

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
77-92-9	CITRIC ACID	1-5
1330-20-7	XYLENE	1-5
1310-73-2	SODIUM HYDROXIDE	1-5
64665-57-2	SODIUM TOLYLTRIAZOLE	1-5

Component Information

This product is not considered hazardous under 29 CFR 1910.1200 (Hazard Communication) when used for its intended purpose.

*** Section 4 - First Aid Measures ***

Eyes

In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. If irritation persists get medical attention.

Skin

For skin contact flush with large amounts of water while removing contaminated clothing. If irritation persists, get medical attention.

Ingestion

If ingested, get immediate medical attention. Do not induce vomiting unless instructed to do so by medical personnel.

Inhalation

Move person to non-contaminated air. Give artificial respiration if not breathing. Call a physician if symptoms develop or persist.



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*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.
This product is combustible at high temperatures.

Hazardous Combustion Products

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Decomposition of this product may emit oxides of nitrogen.

Extinguishing Media

Dry chemical, foam, carbon dioxide.

Fire Fighting Equipment/Instructions

Fire fighters should wear full-face, self contained breathing apparatus and impervious protective clothing.
Fire fighters should avoid inhaling any combustion products.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Contain the discharged material.

Clean-Up Procedures

Wear appropriate protective equipment and clothing during clean-up. Absorb spill with inert material.
Shovel material into appropriate container for disposal.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away. In case of large spills, follow all facility emergency response procedures.

Special Procedures

Wear appropriate personal protective equipment.

*** Section 7 - Handling and Storage ***

Handling Procedures

Avoid getting this material into contact with your skin and eyes. Wash thoroughly after handling. Use this product with adequate ventilation. Keep container closed.

Storage Procedures

Do not store this material in open or unlabeled containers. Store this product in air-tight containers away from sources of heat and light.

*** Section 8 - Exposure Controls / Personal Protection ***

A: Component Exposure Limits

XYLENE (1330-20-7)

ACGIH: 100 ppm TWA
150 ppm STEL
OSHA: 100 ppm TWA; 435 mg/m³ TWA
150 ppm STEL; 655 mg/m³ STEL



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SODIUM HYDROXIDE (1310-73-2)

ACGIH: 2 mg/m³ Ceiling
OSHA: 2 mg/m³ Ceiling
NIOSH: 2 mg/m³ Ceiling

B: Canadian Provincial Exposure Limits

XYLENE (1330-20-7)

Alberta: 100 ppm TWA; 434 mg/m³ TWA
150 ppm STEL; 651 mg/m³ STEL
British Columbia: 100 ppm TWA
Columbia: 150 ppm STEL
Manitoba: 100 ppm TWA
150 ppm STEL
New Brunswick: 100 ppm TWA; 434 mg/m³ TWA
150 ppm STEL; 651 mg/m³ STEL
NW Territories: 100 ppm TWA; 434 mg/m³ TWA
150 ppm STEL; 652 mg/m³ STEL
Skin notation
Nova Scotia: 100 ppm TWA
150 ppm STEL
Nunavut: 100 ppm TWA; 434 mg/m³ TWA
150 ppm STEL; 652 mg/m³ STEL
Skin notation
Ontario: 100 ppm TWAEV; 435 mg/m³ TWAEV
150 ppm STEV; 650 mg/m³ STEV
Quebec: 150 ppm STEV; 651 mg/m³ STEV
100 ppm TWAEV; 434 mg/m³ TWAEV
Saskatchewan: 434 mg/m³ TWA; 100 ppm TWA
651 mg/m³ STEL; 150 ppm STEL
Yukon: 100 ppm TWA; 435 mg/m³ TWA
150 ppm STEL; 650 mg/m³ STEL
Skin notation

SODIUM HYDROXIDE (1310-73-2)

British Columbia: 2 mg/m³ Ceiling
Columbia: 2 mg/m³ Ceiling
Manitoba: 2 mg/m³ Ceiling
New Brunswick: 2 mg/m³ Ceiling
NW Territories: 2 mg/m³ Ceiling
Nova Scotia: 2 mg/m³ Ceiling
Nunavut: 2 mg/m³ Ceiling
Ontario: 2 mg/m³ CEV
Quebec: 2 mg/m³ Ceiling
Saskatchewan: 2 mg/m³ Ceiling
Yukon: 2 mg/m³ Ceiling

Engineering Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

General

Use good industrial hygiene practices in handling this material. Avoid inhalation of mists/vapors and contact with skin and eyes.

Skin

Use appropriate hand protection.



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Respiratory

Use NIOSH approved respirator with cartridge, air line, or SCBA as appropriate based on workplace exposure evaluations.

Eyes

Wear safety glasses; chemical goggles (if splashing is possible).

*** Section 9 - Physical & Chemical Properties ***

Appearance:	Green	Odor:	None
Physical State:	Liquid	Flash Point:	Not Determined
Flash Point Method:	Not Applicable	Boiling Point:	Not Determined
Melting Point:	Not Determined	Pour Point:	Not Determined
Specific Gravity:	1.074	Bulk Density:	8.871 lbs/gal
Solubility (H2O):	Miscible	Vapor Pressure:	Not Available
Vapor Density:	Not Available	Auto Ignition:	Not Available
Lower Flammability Limit:	Not Available	Upper Flammability Limit:	Not Available
pH:	9.8		

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Keep away from heat, ignition sources and incompatible materials.

Incompatibility

This product may react with strong oxidizing agents.

Hazardous Decomposition

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Decomposition of this product may emit oxides of nitrogen.

Possibility of Hazardous Reactions

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

A: General Product Information

An LD50 value for this product has not been determined.

B: Component Analysis - LD50/LC50

CITRIC ACID (77-92-9)

Oral LD50 Rat: 3000 mg/kg

XYLENE (1330-20-7)

Inhalation LC50 Rat: 5000 ppm/4H; Oral LD50 Rat: 4300 mg/kg; Dermal LD50 Rabbit: >1700 mg/kg

SODIUM HYDROXIDE (1310-73-2)

Dermal LD50 Rabbit: 1350 mg/kg



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Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

XYLENE (1330-20-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 71 [1999], Monograph 47 [1989] (Group 3 (not classifiable))

*** Section 12 - Ecological Information ***

Ecotoxicity

No information available for the product.

*** Section 13 - Disposal Considerations ***

Waste Disposal Instructions

Dispose of in accordance with all applicable Federal, State, Provincial, and local regulations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Cleaning Liquid Compound, Not Regulated

IMDG Information

Shipping Name: Cleaning Liquid Compound, Not Regulated

IATA Information

Shipping Name: Cleaning Liquid Compound, Not Regulated

*** Section 15 - Regulatory Information ***

US Federal Regulations

Components of this product have been checked against the non-confidential TSCA inventory by CAS Registry Number. Components not identified on this non-confidential inventory are exempt from listing (i.e. as polymers) or are listed on the confidential inventory as declared by the supplier.

A: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

XYLENE (1330-20-7)

SARA 313: 1.0 % de minimis concentration

CERCLA: 100 lb final RQ; 45.4 kg final RQ

SODIUM HYDROXIDE (1310-73-2)

CERCLA: 1000 lb final RQ; 454 kg final RQ

B: Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
CITRIC ACID	77-92-9	Yes	DSL	EINECS
XYLENE	1330-20-7	Yes	DSL	EINECS
SODIUM HYDROXIDE	1310-73-2	Yes	DSL	EINECS
SODIUM TOLYLTRIAZOLE	64665-57-2	Yes	DSL	EINECS



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State Regulations

Other state regulations may apply. Check individual state requirements.

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
XYLENE	1330-20-7	Yes	Yes	Yes	Yes	Yes	Yes
SODIUM HYDROXIDE	1310-73-2	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
CITRIC ACID	77-92-9	1 %
SODIUM HYDROXIDE	1310-73-2	1 %

*** Section 16 - Other Information ***

Other Information

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use. You must notify each person to whom this mixture or trade name product is sold. This statement must not be detached. Any copy or redistribution of the Material Safety Data Sheet shall include this statement.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; CAS = Chemical Abstract Services; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; CPR = Controlled Product Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EPA = Environmental Protection Agency; HMIS = Hazardous Materials Information System; IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IDL = Ingredient Disclosure List; IMDG = International Maritime Dangerous Goods; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Agency; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; SARA = Superfund Amendments and Reauthorization Act; SCBA = Self Contained Breathing Apparatus; TSCA = Toxic Substance Control Act; WHMIS = Workplace Hazardous Materials Information System.

Contact: Kolin Anglin, Environmental Coordinator

Contact Phone: 316-265-2686

End of MSDS 540