

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Typhoon

Other means of identification

Product Code 1770

Recommended use of the chemical and restrictions on use

Recommended use Organic Digester and Liquid Drain Cleaner
Uses Advised Against For industrial and institutional use only.

Details of the supplier of the safety data sheet

Company Name Blue Cardinal Chemical, LLC
3670 Scarlet Oak Blvd.
St. Louis, MO 63122
800-325-3312

Emergency telephone number

Emergency Telephone CHEMTEL 1-800-255-3924

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity, inhalation	Category 2
Skin corrosion/irritation	Category 1A
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Hazardous to the aquatic environment, acute hazard	Category 3
Hazardous to the aquatic environment, long-term hazard	Category 3

Label elements

Emergency Overview

DANGER

Hazard statements

Causes severe skin burns and eye damage. Causes serious eye damage. Fatal if inhaled. May cause respiratory irritation. May cause cancer. Harmful to aquatic life. Harmful to aquatic life with long-lasting effects.



Appearance: Clear-tan colored liquid

Physical state: Liquid

Odor: None



Precautionary Statements - Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapor. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response

If swallowed: Rinse mouth. Do not induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove individual to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and able to do so. Continue rinsing. Wash contaminated clothing before reuse.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed. Store according to local rules and regulations.

Precautionary Statements - Disposal

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

Hazards not otherwise classified (HNOC)**Other Information**

- Not classified.

3. COMPOSITION/INFORMATION ON INGREDIENTS			
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CHEMICAL NAME	CAS NO.	WEIGHT - %	TRADE SECRET
Sulfuric Acid	7664-93-9	60-100	*
Other components below reportable levels	-		*

***The exact percentage (concentration) of composition has been withheld as a trade secret.**

4. FIRST AID MEASURES

First aid measures**General Advice**

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this SDS to the physician in attendance.

Skin Contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continuing rinsing. Call a physician or poison control immediately.

Inhalation

Remove individual to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if individual inhaled substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a poison control or physician immediately.

Ingestion

Contact a physician or poison control immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms and effect, both acute and delayed**Symptoms**

Burning pain and severe corrosive skin damage. Irritation of nose and throat. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep individual warm. Keep individual under observation. Symptoms may be delayed.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Powder. Foam. Carbon Dioxide.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

General fire hazards

No unusual fire or explosion hazards noted..

Protective equipment and precautions for firefighters

Firefighters must use/wear full protective equipment and self-contained breathing apparatus in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment. Do not breathe vapors or spray mist. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised in significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.

Environmental precautions**Environmental precautions**

Avoid release into the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up**Methods for containment & cleaning up**

This product is miscible in water. Large Spills: Stop the flow of material, if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth or fleece). Clean surface thoroughly to remove residual contamination.

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on Safe Handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors or spray mist. Do not get in eyes, on skin or on clothing. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release into environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials, such as strong alkalis or flammables.

Incompatible Materials Store away from incompatible materials (see Section 10 of the SDS).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

CHEMICAL NAME	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric Acid 7664-93-9)	TWA: 0.2mg/m ³	PEL: 1mg/m ³	TWA: 1mg/mg ³

Appropriate engineering controls

Engineering Controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. It is recommended that users of this product perform a risk assessment to determine the appropriate PPE.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical goggles and face shield recommended when working with chemicals. Chemical respirator with organic vapor cartridge and full face-piece.

Skin and body protection Wear chemical resistant gloves. Use an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapor cartridge and full face-piece, if needed.

General Hygiene When using do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoothing. Regular cleaning of equipment, work area and clothing is recommended, to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Liquid
Appearance Clear Tan Liquid
Color Tan
Odor No scent
Odor Threshold N/D

<u>Property</u>	<u>Values</u>
pH in aqueous solution	<2 (1% DI water)
Specific Gravity	1.84 (H ₂ O=1)
Percent volatile	No information available.
Viscosity	No Information available.
Melting point/freezing point	No Information available.
Flash point	No information available.

Boiling point and Boiling range	550°F (287.78°C)
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper flammability limit:	No information available.
Lower flammability limit:	No information available.
Vapor pressure	1 mm HG @300°
Vapor density	No Information available.
Relative density	No information available.
Water solubility	Soluble.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
VOC (weight %)	None.

10. STABILITY AND REACTIVITY

Reactivity

This product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability

Material is stable at normal conditions.

Possibility Of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions To Avoid

Avoid contact with Incompatible materials: Alkalies. Metals.

Hazardous Decomposition Products

Irritating and/or toxic fumes and gases may be emitted upon the products decomposition. Hydrogen gas. Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Fatal if inhaled.
Eye Contact	Causes serious eye damage.
Skin Contact	Causes severe skin burns.
Ingestion	Causes digestive tract burns.

CHEMICAL NAME	ORAL LD50	DERMAL LD50	INHALATION LC50
Sulfuric Acid (7664-93-9)	-	2140 mg/kg (Rat)	347 mg/l, 1 hour (Rat)

**Estimates for product may be based on additional component data not shown.*

Information on toxicological effects

Symptoms

Burning pain and severe corrosive skin damage. Irritation of nose and throat. Symptoms may include stinging, redness, tearing, swelling and blurred vision. Causes serious eye damage. Permanent eye damage including blindness could result. May cause respiratory irritation.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	This product is not expected to cause skin sensitization.
Germ Cell Mutagenicity	No information available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Skin/Eye irritation	Causes severe burns and eye damage.
Acute toxicity	Fatal if inhaled. May cause respiratory irritation.
Carcinogenicity	May cause cancer. IARC (1 carcinogenic to humans) NTP (known to be human carcinogen) OSHA (No information available).

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

Group 3 -Not classifiable as a human carcinogen

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive Toxicity	Not expected to cause reproductive or developmental effects.
STOT - Single Exposure	May cause respiratory irritation.
STOT - Repeated Exposure	No Information available.
Chronic Effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.
Aspiration Hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effect. Accumulation in aquatic organisms is expected.

Persistence And Degradability

No Information available.

Bioaccumulation

No Information available.

Other Adverse Effects

No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warning potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Collect or dispose in sealed containers and licensed waste disposal site. Do not drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues/unused products	Dispose in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. (See Disposal Instructions).

14. TRANSPORT INFORMATION

The basic description below is specific to the container size. This information is provided for at a glance DOT information. Please refer to the container and/or shipping papers for the appropriate shipping description before tendering this material for shipment. For additional information, please contact the distributor listed in section 1 of this SDS.

<u>DOT</u>		<u>IMDG</u>	
UN/ID No.	UN1830	UN/ID No.	UN1830
Proper Shipping Name	Sulfuric Acid	Proper Shipping Name	Sulfuric Acid
Hazard Class	8	Hazard Class	8
Packing Group	II	Packing Group	II
Marine Pollutant	NO	Marine Pollutant	NO

<u>IATA</u>	
UN/ID No.	UN1830
Proper Shipping Name	Sulfuric Acid
Hazard Class	8
Packing Group	II
Marine Pollutant	NO

15. REGULATORY INFORMATION

International Inventories

Australia, Canada, China, Europe, Japan, Korea, New Zealand, Philippines-Yes*
Canada, Europe-No

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

*A Yes indicates that all components of this product comply with the inventory requirements administered by the governing county(s).
A No indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

US Federal Regulations

SARA 313

Sulfuric Acid (7664-93-9) - 93.2 % of weight.

SARA 311/312 Hazardous Chemical

Yes

Superfund Amendments and Reauthorization Act of 1986

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release Of Pressure Hazard	No
Reactive Hazard	No

CERCLA

Sulfuric Acid (7664-93-9) Listed.

CAA (Clean Air Act) Section 112 Hazardous Air Pollutants (HAPs) List – Not regulated.

CAA (Clean Air Act) Section 112(r) Accidental Release Prevention (40 CFR 68.130) – Sulfuric Acid (7664-93-9)

SDWA (Safe Drinking Water Act) – Not Regulated.

DEA (Drug Enforcement Administration). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number – Sulfuric Acid (7664-93-9) 6552

DEA, List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c)) – Sulfuric Acid (7664-93-9) 20% Weight/Volume

DEA, Exempt Chemical Mixtures Code Number – Sulfuric Acid (7664-93-9) 6552

US State Regulations**California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US-California Proposition 65-CRT: Listed carcinogenic substance – Sulfuric Acid (7664-93-9)

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey-Rhode Island	Massachusetts	Pennsylvania
Sulfuric Acid (7664-93-9)	x	x	x

16. OTHER INFORMATION

NFPA	Health hazards	3	Flammability	0	Instability	2	Physical and Chemical Properties	Yes
HMIS	Health hazards	3*	Flammability	0	Physical hazards	2	Personal protection	B

Issue Date 05-Mar-2019

Revision Date 05-Mar-2019

Revision Note New Format

N/A = Not Applicable; N/D = Not Determined

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet