

# MATERIAL SAFETY DATA SHEET

## DYNA-BRITE CONCENTRATE

### Section I



#### CHEMICALS & EQUIPMENT, INC.

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#### Emergency Telephone Number

(713) 644-1492

#### Telephone Number for Information

(713) 644-1492

#### Date Prepared

JANUARY 5, 2010 (Revised 8/9/2013)

### Section II — Hazardous Ingredients/Identity Information

| Hazardous Components<br>(Specific Chemical Identity: Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits<br>Recommended | % (optional) |
|--|----------|-----------|-----------------------------|--------------|
| Sulfuric Acid (CAS#7664-93-9)  | 1        | 2         | N/A                         | N/A          |
| Hydrofluoric Acid (CAS#7664-39-3)                                    | 3        | 3         | N/A                         | N/A          |

### Section III — Physical/Chemical Characteristics

|                         |        |   |       |
|-------------------------|--------|---|-------|
| Boiling Point           | 200° F | Specific Gravity (H <sub>2</sub> O = 1) | 1.158 |
| Vapor Pressure (mm Hg.) | N/A    | Melting Point                           | N/A   |
| Vapor Density (AIR = 1) | N/A    | Evaporation Rate (Butyl Acetate = 1)    | 1     |

#### Solubility in Water

100%

#### Appearance and Odor

Clear, colorless to slightly tinted liquid, pungent odor.

### Section IV — Fire and Explosion Hazard Data

|                           |      |                  |     |     |
|---------------------------|------|------------------|-----|-----|
| Flash Point (Method Used) | None | Flammable Limits | LEL | UEL |
|                           |      | N/A              | N/A | N/A |

#### Extinguishing Media

Use water spray, dry chemical, "alcohol" foam or Carbon Dioxide.

#### Special Fire Fighting Procedures

Cool tank with water if exposed to fire. Wear self-contained breathing apparatus and full protective clothing and boots

#### Unusual Fire and Explosion Hazards

Hydrofluoric acid corrodes most metals releasing flammable explosive concentrations of Hydrogen (particularly when diluted).

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## Section V — Reactivity Data

|           |          |   |                                |
|-----------|----------|---|--------------------------------|
| Stability | Unstable |   | Conditions to Avoid<br><br>N/A |
|           | Stable   | X |                                |

### Incompatibility (Materials to Avoid)

HF vapors, Silicon Tetrafluoride, Hydrogen

### Hazardous Decomposition or Byproducts

None

|                          |                |               |                                 |
|--------------------------|----------------|---------------|---------------------------------|
| Hazardous Polymerization | May Occur      | None<br><br>X | Conditions to Avoid<br><br>None |
|                          | Will Not Occur |               |                                 |

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## Section VI — Health Hazard Data

|                    |                                |                          |                               |
|--------------------|--------------------------------|--------------------------|-------------------------------|
| Route(s) of Entry: | Inhalation?<br>Severe irritant | Skin?<br>Severe irritant | Ingestion?<br>Severe irritant |
|--------------------|--------------------------------|--------------------------|-------------------------------|

### Health Hazards (Acute and Chronic)

Severe irritant to corrosive effects when in contact with eyes, skin and extremely hazardous when entering the body by inhalation or ingestion.

|                  |      |                  |                 |
|------------------|------|------------------|-----------------|
| Carcinogenicity: | NTP? | IARC Monographs? | OSHA Regulated? |
| None             | None | None             | No              |

### Signs and Symptoms of Exposure

Can cause severe burns. Dangerous to eyes, skin, and respiratory tract. Corrosive to gastrointestinal tract if taken internally. Lung injury may be delayed.

### Medical Conditions (Generally Aggravated by Exposure)

None

### Emergency and First Aid Procedures

Remove to fresh air and call a physician. *For eyes and skin*, flush with water for at least 14 minutes. *For inhalation*, give oxygen, if no breathing, give artificial respiration (mouth to mouth). Take immediately to a hospital.

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## Section VII — Precautions for Safe Handling and Use

### Steps to Be Taken in Case Material is Released or Spilled

- Strong oxidizing material. Do not store near oxidizable materials, e.g., flammable, reducing agents, and combustible materials. Separate from caustics. Separate from chemically active metals and reducing agents. Separate from organics.
- Dike area to contain spills. Neutralize spill with soda ash, flush away with water.

### Waste Disposal Method

Refer to all State, Local and Federal laws.

### Precautions to Be Taken in Handling and Storing

See step (A) above.

### Other Precautions

None

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## Section VIII — Control Measures

### Respiratory Protection (Specify Type)

NIOSH or OSHA approved respirator when mist or spray occurs

|             |  |                |
|-------------|--|----------------|
| Ventilation | Local Exhaust<br>Yes - well ventilated | Special<br>N/A |
|             | Mechanical (General)<br>N/A            | Other<br>N/A   |

### Protective Gloves

Rubber or Neoprene

### Eye Protection

Face shield

### Other Protective Clothing or Equipment

Rubber boots and apron

### Work/Hygiene Practices

Normal