

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: RED ZONE PART A CS33PT

NFPA/HMIS: Health 1
Flammability 0
Reactivity 0

MATERIAL SAFETY DATA SHEET U.S. DEPARTMENT OF LABOR
COMPLIES WITH USDL SAFETY AND HEALTH REGULATIONS 29CFR1910.1200

SECTION 1: COMPANY AND PRODUCT IDENTIFICATION

PRODUCT NAME: Red Zone Part A

MANUFACTURER:

Bridgepoint Systems
542 W. Confluence Avenue
Salt Lake City, UT 84123
Telephone: 801-261-1282
Prepared 5/1/08

EMERGENCIES: (800) 535-5053 (Infotrac)

NFPA/HMIS RATINGS: Health: 2, Flammability: 0, Reactivity: 0

SECTION 2: INGREDIENTS

HAZARDOUS INGREDIENTS:
Sodium Bisulfite (CAS # 7631-90-5)

OSHA PEL	TLV_
5 mg/m ³	5 mg/m ³

SECTION 3: HAZARDS INFORMATION

Emergency Overview

Warning Statement: None

Primary Entry Routes: Inhalation

Target Organs: Respiratory system, eyes, skin

Acute Effects: Acute effects to exposure of sodium bisulfite includes eye and mucous membrane irritation. Decomposition of Sodium bisulfite may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide. Acute poisoning from sulfur dioxide is rare because the gas is easily detected. It is so irritating that contact cannot be tolerated. Symptoms include coughing, hoarseness, sneezing, tearing, and

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breathing difficulty.

Inhalation: Irritant

Eye: Irritant

Skin: Irritant

Ingestion: Not likely to occur

Carcinogenicity: **NTP:** Known – No; Anticipated – No **OSHA:** TLV-A4 for Sodium Metabisulfite **IARC:** No

Chronic Effects: Prolonged or repeated exposure may cause dermatitis, and sensitization reactions.

Medical Conditions Aggravated by Long-Term Exposure: Capable of provoking bronchospasm in sulfite-sensitive individuals who have asthma.

SECTION 4: FIRST AID MEASURES

Exposure

Route	Symptom	Treatment
Inhalation:	Sore throat, shortness of breath coughing, and congestion.	Remove from exposure to fresh air. Seek medical attention in severe cases or if recovery is not rapid.
Eye Contact:	Irritation to eyes and mucous membranes.	Irrigate with water until no evidence of chemical remains. Obtain medical attention.
Skin Contact:	Irritation, itching, dermatitis	Wash with soap and drench with water. Remove contaminated clothing and wash before reuse.
Ingestion:	Irritation to mucous membranes.	Give large quantities of water or milk immediately. Obtain medical attention.

After first aid, get appropriate medical attention.

Note to physician: Exposure may aggravate acute or chronic asthma, emphysema and bronchitis.

Special Precautions/Procedures: None indicated.

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SECTION 5: FIRE FIGHTING MEASURES

Flash Point: Not combustible.
Flash Point Method: Not Applicable.
Burning Rate: Not Applicable.
Autoignition Temperature: Not Applicable.
LEL: Not Applicable.
UEL: Not Applicable.
Flammability Classification: Not Flammable.

Extinguishing Media: Use extinguishing agent appropriate for surrounding fire conditions.

Unusual Fire or Explosion Hazards: None indicated.

Hazardous Combustion Products: May release hazardous gas.

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill / Leak Procedures: Wear appropriate PPE - See Section 8.

Small Spills / Leaks: Spills can be neutralized with an alkaline material.

SECTION 7: HANDLING & STORAGE

Handling Precautions: Avoid contact with product. Do not breath vapor.

Storage Requirements: Avoid heat or moisture. Store in areas, away from heat and protected from physical damage. Segregate from acids and oxidizers.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA limits (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at the source.

Respiratory Protection: Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of

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sufficient oxygen.

Protective Clothing / Equipment: Wear protective gloves to prevent excessive skin contact. Wear protective eyeglasses or goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133).

Contaminated Equipment: Remove this material from personal protective equipment as needed.

Comments: Do not eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before food or beverage consumption.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

Odor: Strong Sulfur
Physical State: Liquid.
Appearance: Clear
pH: 2.0
Specific Gravity: 1.0836 g/mL
Boiling Point: N/E
Freezing/Melting Point: N/E
Vapor Pressure: N/E
Vapor Density: N/E
Solubility in Water: Complete

SECTION 10: STABILITY & REACTIVITY

Stability: Stable under normal conditions.

Polymerization: Hazardous polymerization will not occur.

Chemical incompatibilities: In the presence of water, or acid, Sodium Metabisulfite (and solutions) may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide. Acute poisoning from sulfur dioxide is rare because the gas is easily detected. It is so irritating that contact cannot be tolerated. Symptoms include coughing, hoarseness, sneezing, tearing, and breathing difficulty. Reacts with chlorates to form unstable chlorine dioxide.

Conditions to Avoid: Avoid excessive heat, or open flame, and moisture.

Hazardous Decomposition Products: May release hazardous sulfur dioxide gas.

SECTION 12: TOXICOLOGICAL INFORMATION

Eye Effects (rabbit): Not available.
Acute inhalation Effects (rat): Not available.

Skin Effects (rabbit): Non-corrosive.
Acute Oral Effects (rat): LD50 = 115 mg/kg

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Chronic Effects: Prolonged or repeated exposure may cause dermatitis, and Sensitization reactions. Exposure to asthmatic, atopic and sulfite sensitive individuals may result in severe bronchoconstriction and reduced levels in forced expiratory volume.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: bisulfite is a non hazardous liquid commonly used as a waste water dechlorinating agent. High concentrations will contribute to elevated chemical oxygen demand in aquatic environments.

Environmental Transport: Soluble in water.

Environmental Degradation: Rapid biological decomposition.

Soil Absorption/Mobility: Slight.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Information:

Do not dispose of on the land, in surface waters, or in storm drains. Small spills and waste may be flushed into a waste treatment sewer where local regulations permit. Larger quantities should be collected for reuse or consigned to a licensed hazardous waste hauler for disposal in accordance with federal, state and local regulations. **All disposal must be in accordance with all federal, state and local regulations.**

SECTION 14: TRANSPORTATION INFORMATION

No restrictions for Ground, Air, or Maritime Transportation in accordance with 49 CFR parts 100-185.

SECTION 15: REGULATORY INFORMATION

Sodium Bisulfite (CAS # 7631-90-5 <15%) CERCLA, MASS, PA
All components are listed on TSCA

CERCLA = Superfund Cleanup Substance

MASS = Massachusetts Hazardous Substance List

PA = PA Right-to-Know List of Hazardous Substances

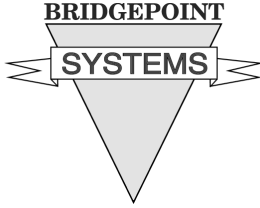
SECTION 16: OTHER INFORMATION

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This product has no established regulatory information. All regulatory information given is based on individual components of the mixture by component number. While this information and recommendations set forth herein are believed to be accurate and reliable, it is provided without warranty regarding its accuracy. BRIDGEPOINT SYSTEMS MAKES NO WARRANTY WITH RESPECT HERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON. Users must determine safe conditions for use and assume liability for any loss, injury, damage or expense resulting from use of this product.

N/A = Not applicable N/D = Not determined N/E = Not established



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Flammability 2
Reactivity 0

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PRODUCT NAME: Red Zone Part B

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NFPA/HMIS RATINGS: Health: 1, Flammability: 2, Reactivity: 0

SECTION 2: INGREDIENTS

PRINCIPLE HAZARDOUS INGREDIENTS:

OSHA PEL

TLV

Triethanolamine (CAS # 102-71-6)
Isopropyl Alcohol (CAS # 67-63-0)

N/E
400 p.p.m.

N/E
400 p.p.m.

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview

Color: Colorless to yellow

Physical State: Liquid

Odor: Ammoniacal

Hazards of product:

CAUTION! May cause eye irritation. Isolate area.

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Potential Health Effects

Eye Contact: May cause moderate eye irritation. Corneal injury is unlikely.

Skin Contact: Prolonged exposure not likely to cause significant skin irritation. Repeated exposure may cause irritation, even a burn.

Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Skin Sensitization: For the major component(s): Skin contact may cause an allergic skin reaction in a small proportion of individuals.

Inhalation: At room temperature, exposure to vapor is minimal due to low volatility; vapor from heated material may cause respiratory irritation.

Ingestion: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

Effects of Repeated Exposure: For the major component(s): In animals, effects have been reported on the following organs: Kidney. Liver.

Carcinogenicity: **NTP:** Known – No; Anticipated – No **OSHA:** TLV-A4 for isopropyl alcohol.

IARC: No

SECTION 4: FIRST AID MEASURES

Eye Contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Ingestion: No emergency medical treatment necessary.

Notes to Physician: If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIRE FIGHTING MEASURES

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Flash Point: 110° F (Closed cup)

Extinguishing Media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Carbon monoxide. Carbon dioxide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be Taken if Material is Released or Spilled: Large spills: Dike area to contain spill. Pump into suitable and properly labeled containers. Small spills: Dilute with water. Recover spilled material if possible. Absorb with materials such as: Non-combustible material. Sand. Remove with shovel. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

Personal Precautions: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to Section 7, Handling, for additional precautionary measures.

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Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

SECTION 7: HANDLING AND STORAGE

Handling

General Handling: Avoid contact with eyes. Wash thoroughly after handling. Thaw and mix well before using. Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Storage

Avoid freezing. Store in a dry place. Do not store in: Copper. Copper alloys. Galvanized containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protection

Eye/Face Protection: Use chemical safety glasses.

Skin Protection: When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full-body suit will depend on the task.

Hand protection:

Use gloves chemically resistant to this material. Examples of acceptable glove barrier materials include: Butyl rubber. Natural rubber (latex). Neoprene. Nitrile/butadiene rubber (nitrile or NBR). Polyvinyl chloride (PVC or vinyl). Viton.

Respiratory Protection:

For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation: General ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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Odor: Ammoniacal
Physical State: Liquid.
Appearance: Clear, Colorless
pH: 11.0-11.4
Specific Gravity: 1.056 g/mL
Boiling Point: N/E
Freezing/Melting Point: N/E
Vapor Pressure: N/E
Vapor Density: N/E
Solubility in Water: Complete

SECTION 10: STABILITY AND REACTIVITY

Stability/Instability

Stable under recommended storage conditions. See Storage, Section 7.

Conditions to Avoid: Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible Materials: Avoid contact with: Strong acids. Strong oxidizers.

Hazardous Polymerization

Will not occur.

Thermal Decomposition

Decomposition products depend upon temperature, air supply and the presence of other materials.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Ingestion

Single dose oral LD50 has not been determined.

For the major component(s): LD50, Rat 5,000 - 9,600 mg/kg

Skin Absorption

The dermal LD50 has not been determined.

For the major component(s): LD50, Rabbit > 2,000 mg/kg

Sensitization

Skin

For the major component(s): Skin contact may cause an allergic skin reaction in a small proportion of individuals. For the major component(s): Did not cause allergic skin reactions when tested in guinea pigs.

Repeated Dose Toxicity

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For the major component(s): In animals, effects have been reported on the following organs: Kidney. Liver.

Chronic Toxicity and Carcinogenicity

Contains component(s) which have caused cancer in laboratory animals. However, the relevance of this to humans is unknown.

Developmental Toxicity

Screening studies in animals suggest that this material does not affect fetal development.

Genetic Toxicology

In vitro genetic toxicity studies were negative.

SECTION 12: ECOLOGICAL INFORMATION

Triethanolamine -Material is readily biodegradable.

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in the most sensitive species tested).

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of on the land, in surface waters, sewers or in storm drains. Larger quantities should be collected for reuse or consigned to a licensed hazardous waste hauler for disposal in accordance with federal, state and local regulations. **All disposal must be in accordance with all federal, state and local regulations.**

SECTION 14: TRANSPORTATION INFORMATION

Ground Transportation: Ship ORM-D in gallon containers or smaller.

Air Transportation: Do not ship by air.

Maritime Transportation: Flammable Liquid, N.O.S., Isopropyl Alcohol, hazard class 3, U.N. Packing Group III

SECTION 15: REGULATORY INFORMATION

Isopropanol (CAS #67-63-0 <10.0%) MASS, NJHS, NRC, OSHAWAC, PA, SARA 313, TXAIR, WHMIS 1%

Triethanolamine (CAS # 102-71-6 <50%) PA

All components are listed on TSCA

MASS = Massachusetts Hazardous Substance List

NJHS = New Jersey Right-to-Know Hazardous Substances

NRC = Nationally Recognized Carcinogens

OSHA WAC = OSHA Workplace Contaminants

PA = PA Right-to-Know List of Hazardous Substances

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SARA 313 = SARA 313 Title III Toxic Chemicals

TXAIR = Texas Air Contaminants with Health Effects Screening Level

WHMIS = Workforce Hazardous Material Information

SECTION 16: OTHER INFORMATION

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N/A= Not applicable N/D= Not determined N/E= Not established