



CITRASTAR-50

SAFETY DATA SHEET

Revision #1: 09.16.2021

1. IDENTIFICATION

COMPANY NAME: Ballast Star Corp.
ADDRESS: 172 Prospect Hill Road
Brewster, NY 10509
TELEPHONE: 914-949-2000
FAX: 914-949-2074

EMERGENCY CONTACT: Call CHEMTREC at 800-424-9200 for 24-hour Emergency Response involving a spill, leak, fire, exposure, or accident.

PRODUCT NAME / USE: CITRASTAR-50
USE: Liquid Tire Ballast

2. HAZARD(S) IDENTIFICATION

OSHA REGULATORY STATUS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

EMERGENCY OVERVIEW:

APPEARANCE: Clear / Slightly Turbid Liquid
ODOR: None / Odorless
REACTIVITY: None

MAJOR HEALTH HAZARDS: Causes Serious Eye Irritation. Causes Skin Irritation

PRECAUTIONARY STATEMENTS: Wear eye and face protection.
Wear protective gloves.
Wear proper foot protection.
Wash thoroughly after handling.

GHS CLASSIFICATION:

GHS: CONTACT HAZARD – SKIN: Category 2 – Causes skin irritation.
GHS: CONTACT HAZARD – EYE: Category 2A – Causes serious eye irritation.
GHS: ACUTE TOXICITY – INHALATION: No data available. Not classified
GHS: ACUTE TOXICITY – ORAL: Not classified as acutely toxic for oral exposure.
GHS: ACUTE TOXICITY – DERMAL: Not classified as acutely toxic for dermal exposure.
GHS: CARCINOGENICITY: Not classified as a carcinogen per GHS criteria. This Product is not classified as a carcinogen by NTP, IARC or OSHA.

UNKNOWN ACUTE TOXICITY:

A percentage of this product consists of ingredient(s) of unknown acute toxicity.

Unknown Acute Dermal Toxicity:

3% of this product consists of ingredient(s) of unknown acute dermal toxicity.

GHS SYMBOL:



GHS SIGNAL WORD: WARNING

GHS HAZARD STATEMENTS

GHS – HEALTH HAZARD STATEMENT(S)

Causes skin irritation
Causes serious eye irritation
Causes gastrointestinal tract irritation (if ingested)
Causes nausea and vomiting (if ingested)
Causes nose, throat, and lung irritation (if mist is inhaled)
Seek medical attention for irritation, ingestion, or discomfort from inhalation

GHS – Precautionary Statement(s) – Prevention

Wear eye and face protection
Wear protective gloves
Remove contaminated clothing, footwear, and protective equipment
Wash thoroughly after handling

GHS – Precautionary Statement(s) – Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, seek medical attention.

IF ON SKIN: Wash affected area with soap or mild detergent, and plenty of water. Take off contaminated clothing, footwear, and contaminated equipment and wash before reuse.

IF INGESTED: Seek medical advice immediately. Only induce vomiting as directed by medical personnel. Specific treatment (see First Aid information on product label and/or Section 4 of the SDS)

IF INHALED: Remove from exposure. If breathing is difficult or irritation develops, seek medical attention.

GHS – Precautionary Statement(s) – Storage

There are no Precautionary Storage phrases assigned

GHS – Precautionary Statement(s) – Disposal

Dispose of contents and container in accordance with applicable local, regional, national and/or international regulations.

Hazards Not Otherwise Classified (HNOC)

None identified

See Section 11: TOXICOLOGICAL INFORMATION

3. COMPOSITION / INFORMATION ON INGREDIENTS

PRODUCT NAME: CITRASTAR-50

<u>CHEMICAL</u>	<u>Wt. %</u>	<u>CAS No.</u>	<u>TLV (ACGIH) / PEL (OSHA)</u>
Calcium Chloride	20 - 45	010043-52-4	None Established
Water	53 - 78	007732-18-5	None Established
Rust Inhibitor	1 - 2	n/a	None Established
Potassium Chloride	< 1	007447-40-7	None Established
Sodium Chloride	< 1	007647-14-5	None Established
Calcium Bromide (CaBr ₂)	< 1	007789-41-5	None Established
Fragrance	< 1	n/a	None Established
Coloring	< 1	n/a	None Established

4. FIRST AID MEASURES

EYES: Irrigate with flowing water immediately and continuously for 15 minutes. If effects occur, consult medical personnel immediately.

SKIN: Wash off in flowing water or shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing, footwear, and protective equipment. Wash before reuse.

INGESTION: If swallowed, seek medical advice immediately. Only induce vomiting as directed by medical personnel (Never give anything by mouth or attempt to induce vomiting in an unconscious person).

INHALATION: Remove to fresh air; if effects occur, administer oxygen if necessary. Consult a physician.

Most Important Symptoms/Effects (Acute or Delayed):

Acute Symptoms/Effects: Listed below.

Inhalation (Breathing): Inhalation mist, spray, or vapor may cause irritation to upper respiratory tract (nose and throat). Nasal mucosal and oropharyngeal erythema.

Skin: Skin Irritation. Skin exposure may cause slight irritation, redness, itching, swelling. May cause more severe response if skin is damp, abraded (scratched or cut), or covered by clothing, gloves, or footwear. Prolonged contact may cause more severe symptoms. Damage is localized to contact areas.

Eye: Eye irritation. Eye exposure may cause serious eye irritation and pain. May cause conjunctival Swelling and cornea opacification from hypertonic solution. Corneal eye pain, redness, acute corneal thickening, or whitening.

Ingestion (Swallowing): Consumption of solids or hypertonic solutions causes nausea, vomiting, and increased thirst.

NOTES TO PHYSICIAN: Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach, and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal / esophageal control if lavage is done. 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.

5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION HAZARD: This material does not burn.

EXTINGUISHING MEDIA: This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

FIRE FIGHTING PROCEDURES: Keep people away. Isolate fire and deny unnecessary entry. This material does not burn. Fight fire for other material that is burning. Water should be applied in large quantities as a fine spray.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear NIOSH approved positive-pressure, self-containing breathing apparatus (SCBA) operated in pressure demand mode. Wear protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-containing breathing apparatus and fight fire from a remote location.

Lower Flammability Level (air): Not Applicable

Upper Flammability Level (air): Not Applicable

Flash Point: Not Applicable

Auto-Ignition Temperature: Not Applicable

6. ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE: Small and large spills: Contain spilled material if possible. Collect in suitable and properly labeled containers. Flush residue with plenty of water. See Section 13, Disposal Considerations, for additional information. Absorb with materials such as sand.

PERSONAL PRECAUTIONS: Spilled material may cause a slipping hazard. 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.

7. HANDLING & STORAGE

Comply with federal, state, and local laws, regulations and procedures when storing this product. Store in a tightly closed container. Store away from incompatible materials. Do not store in attic, upper floors, or any area where leaking of contents could cause damage.

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container tightly closed. Protect from atmospheric moisture. Product shipped/handled hot can cause thermal burns. Avoid eye and prolonged skin contact. Wash thoroughly after handling.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA Final PEL TWA: TWA 15 mg/m³ (total), TWA 5 mg/m³ (resp)

ACGIH TWA: TWA 10 mg/m³ (inhalable), TWA 3 mg/m³ (resp)

ENGINEERING CONTROLS: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. In dusty or misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: High efficiency particulate air (HEPA) N95. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

SKIN & BODY PROTECTION: 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. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

EYE PROTECTION: Wear chemical safety goggles.

HAND PROTECTION: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include Neoprene, Polyvinyl Chloride ("PVC" or "Vinyl"), Nitrile/Butadiene Rubber ("Nitrile" or "NBR").

FEET PROTECTION: Use boots/footwear chemically resistant to this material. Examples of preferred boot/footwear barrier materials include Neoprene, Polyvinyl Chloride ("PVC" or "Vinyl"), Nitrile/Butadiene Rubber ("Nitrile" or "NBR").

9. PHYSICAL & CHEMICAL PROPERTIES

MELTING POINT:	n/a
BOILING POINT:	110° - 122° C (230° - 252° F) Literature
VAPOR PRESSURE:	9 - 15 mmHg @ 25° C Literature
VAPOR DENSITY:	Same as water
SOLUBILITY IN WATER:	Completely miscible with water
SPECIFIC GRAVITY:	1.275 – 1.439 Literature
APPEARANCE:	Clear / Slightly Turbid Liquid
ODOR:	Odorless
FLASH POINT:	n/a
METHOD USED:	Setaflash Closed Cup
FLAMMABLE LIMITS:	
LFL:	n/a
UFL:	n/a
VISCOSITY:	2.6 cSt @ 25° C Estimated

10. STABILITY & REACTIVITY

CHEMICAL STABILITY: Stable at normal temperatures and pressures.

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY: Avoid contact with bromide trifluoride, 2-furan percarboxylic acid because calcium chloride is incompatible with those substances. Contact with zinc forms flammable hydrogen gas, which can be explosive. Catalyzes exothermic polymerization of methyl vinyl ether. May release flammable hydrogen gas. Reaction of bromide impurity with oxidizing materials may generate trace levels of impurities such as bromates.

HAZARDOUS DECOMPOSITION PRODUCTS: Does not decompose.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

PRODUCT TOXICITY DATA: CITRASTAR-50

LD50 ORAL:	2282 mg/kg – Oral Acute Toxicity Estimate (ATE)
LD50 DERMAL:	6013 mg/kg – Dermal Acute Toxicity Estimate (ATE)
LD50 INHALATION:	No data is available

COMPONENT TOXICITY DATA:

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium Chloride	1000 mg/kg (Rat)	2630 mg/kg (Rat)	-
Potassium Chloride	2600 mg/kg (Rat)		
Sodium Chloride	3 g/kg (Rat)	10 g/kg (Rabbit)	42 g/m ³ (1-Hr Rat)

SIGNS AND SYMPTOMS OF EXPOSURE:

Solution and or solids may be visible on the skin and or eyes. Localized redness, warmth, and irritation consistent with mechanism of injury: abrasion, burn, hypertonic solution.

GHS HEALTH HAZARDS:

GHS: ACUTE TOXICITY – ORAL: Not classified as acutely toxic for oral exposure.
GHS: ACUTE TOXICITY – DERMAL: Not classified as acutely toxic for dermal exposure.
GHS: ACUTE TOXICITY – INHALATIONS: No data available. Not classified.
GHS: CONTACT HAZARD – SKIN: Category 2 – Causes skin irritation.
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GHS: CARCINOGENICITY: Not classified as a carcinogen per GHS criteria.

MUTAGENIC DATA: Not classified as a mutagen per GHS criteria.

DEVELOPMENTAL TOXICITY: Not classified as a developmental or reproductive toxin per GHS criteria. For the major component(s): Did not cause birth defects or any other fetal effects in laboratory animals.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

AQUATIC TOXICITY: Material is practically non-toxic to aquatic organisms on an acute basis

FRESHWATER FISH TOXICITY:

Calcium Chloride: LC50, bluegill (*Lepomis macrochirus*): 8,350 – 10,650 mg/l

Potassium Chloride: LC50, rainbow trout (*Oncorhynchus mykiss*), 96 h: 4,236 mg/l

Sodium Chloride: LC50, fathead minnow (*Pimephales promelas*): 10.610 mg/l

INVERTEBRATE TOXICITY:

Calcium Chloride: LC50, water flea (*Daphnia magna*): 759 – 3,005 mg/l

Potassium Chloride: EC50, water flea (*Daphnia magna*): 24 h, immobilization: 590 mg/l

Sodium Chloride: LC50, water flea (*Daphnia magna*): 4,571 mg/l

MICROORGANISM TOXICITY:

Sodium Chloride: IC50, OECD 209 Test; activated sludge, respiration inhibition: > 1000 mg/l

FATE & TRANSPORT:

BIODEGRADATION: Biodegradation is not applicable.

BIOCONCENTRATION: No bioconcentration is expected because of the relatively high water solubility. Potential for mobility in soil is very high (Koc between 0 and 50). Partitioning from water to n-octanol is not applicable.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Reuse or recycle if possible. All disposal practices must be in compliance with all Federal, State/Provincial and Local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

For UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Reclaimer or Wastewater treatment system.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101: Not Regulated

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: Not Regulated

The Transportation of Dangerous Goods Act (T.D.G.A.) Classification: Not Regulated

15. REGULATORY INFORMATION**U.S. REGULATIONS:**

OSHA REGULATORY STATUS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) (US)

EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.21): Acute Health Hazard

EPCRA SECTION 313 (40 CFR 372.65): To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119): Not regulated.

CALIFORNIA PROPOSITION 65: This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

CANADIAN REGULATIONS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

WHMIS CLASIFICACION: D2B

16. OTHER INFORMATION

NFPA Hazard Rating (NFPA): (Scale 0-4)

HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

HMIS Hazard Rating (HMIS): (Scale 0-4)

HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY BALLAST STAR, except that the product shall conform to contracted specifications.

The information provided herein was believed by Ballast Star to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use.

Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach of warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.