

Safety Data Sheet
acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

1 Identification

- **Product identifier** BRIGHT EZE - ACID DETERGENT
- **Trade name:** BRIGHT EZE
- **Article number:** LMR200A
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
ZEE COMPANY
3401 Cummings Rd.
Chattanooga, TN 37419
- **Information department:** Technical Services: 423-698-1401
- **Emergency telephone number:** CHEMTREC: 800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



Corrosion

Corrosive to Metals 1 H290 May be corrosive to metals.
 Skin Corrosion 1A H314 Causes severe skin burns and eye damage.
 Eye Damage 1 H318 Causes serious eye damage.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



- **Signal word** Danger

- **Hazard-determining components of labeling:**

phosphoric acid
nitric acid

- **Hazard statements**

May be corrosive to metals.
Causes severe skin burns and eye damage.

- **Precautionary statements**

Keep only in original container.
Do not breathe dusts or mists.
Wash thoroughly after handling.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: **BRIGHT EZE**

(Contd. of page 1)

Wear protective gloves/protective clothing/eye protection/face protection.
 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 person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a poison center/doctor.
 Specific treatment (see on this label).
 Wash contaminated clothing before reuse.
 Absorb spillage to prevent material damage.
 Store locked up.
 Store in corrosive resistant container with a resistant inner liner.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 2
 Fire = 0
 Reactivity = 1

- **HMIS-ratings (scale 0 - 4)**



Health = 2
 Fire = 0
 Reactivity = 1

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

7664-38-2	phosphoric acid	15-25%
7697-37-2	nitric acid	2.5-10%

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
 Remove to fresh air. If symptoms persist consult a doctor.
 In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
 Remove contaminated clothing and flush area with running water for a minimum of 15 minutes. If irritation persists consult a doctor.
 Immediately wash with water and soap and rinse thoroughly.

(Contd. on page 3)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: **BRIGHT EZE**

(Contd. of page 2)

- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
Immediately flush open eye with running water for a minimum of 15 minutes. Immediately get medical attention.
- **After swallowing:**
Do not induce vomiting. Rinse mouth out with water, and drink several glasses of water. Never give anything by mouth to an unconscious person.
Immediately contact a doctor or Poison Control Center.
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow to enter surface or ground water.
Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:

7664-38-2	phosphoric acid	3 mg/m ³
7697-37-2	nitric acid	0.16 ppm

· PAC-2:

7664-38-2	phosphoric acid	30 mg/m ³
7697-37-2	nitric acid	24 ppm

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: **BRIGHT EZE**

(Contd. of page 3)

· PAC-3:		
7664-38-2	phosphoric acid	150 mg/m ³
7697-37-2	nitric acid	92 ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool, dry, well ventilated area.
Keep this and all chemicals out of the reach of children.
- **Information about storage in one common storage facility:**
Store away from alkali and chlorinated materials.
- **Further information about storage conditions:**
Store under lock and key and out of the reach of children.
Shelf life: 2 years in original unopened containers.
Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**

· Components with limit values that require monitoring at the workplace:	
7664-38-2 phosphoric acid	
PEL	Long-term value: 1 mg/m ³
REL	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
TLV	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
7697-37-2 nitric acid	
PEL	Long-term value: 5 mg/m ³ , 2 ppm
REL	Short-term value: 10 mg/m ³ , 4 ppm Long-term value: 5 mg/m ³ , 2 ppm
TLV	Short-term value: (4) NIC-0.025* ppm Long-term value: (2) ppm *inh. fraction + vapor, NIC-A4

- **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: BRIGHT EZE

(Contd. of page 4)

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
Not necessary if room is well-ventilated.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Apron

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
 - **General Information**
 - **Appearance:**

Form:	Liquid
Color:	Pink
 - **Odor:** Acidic
 - **Odor threshold:** Not determined.
- | | |
|-------------------------------------|------|
| · pH-value at 20 °C (68 °F): | <1.5 |
|-------------------------------------|------|
- **Change in condition**
 - **Melting point/Melting range:** Undetermined.

(Contd. on page 6)

-US-

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: BRIGHT EZE

(Contd. of page 5)

Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density at 20 °C (68 °F):	1.175 g/cm ³ (9.80538 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
Solids content:	22.5 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Exothermic reaction with strong alkali / caustic.
- **Conditions to avoid** Do not mix with alkalies, oxidizers, bleach or ferrous metals.
- **Incompatible materials:**
Alkalies, sodium hypochlorite solutions, soft metals, ferrous metals, strong oxidizers.
- **Hazardous decomposition products:** Oxides of phosphorus and nitrogen.

US

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: BRIGHT EZE

(Contd. of page 6)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **Primary irritant effect:**

- **on the skin:**

Strong corrosive effect on the skin

Caustic effect on skin and mucous membranes.

- **on the eye:**

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

Swallowing will lead to a strong corrosive effect on the mouth and throat and to the danger of the perforation of esophagus and stomach.

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

a. Aquatic Toxicity Freshwater fish, 96 hr LC50 = > 100 mg/l (estimated)

Daphnia magna, 48 hr EC50 = > 100 mg/l (estimated)

Acute aquatic toxicity will result from oxygen depletion caused by sulfite ingredient. Prevent spills from entering natural waterways and sewer systems.

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Not hazardous for water.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

(Contd. on page 8)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: BRIGHT EZE



(Contd. of page 7)

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Dispose of in accordance with federal, state, and local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|--|
| <ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA | UN1760 |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG, IATA | Corrosive liquids, n.o.s. (Phosphoric acid solution, Nitric acid)
CORROSIVE LIQUID, N.O.S. (PHOSPHORIC ACID, SOLUTION, NITRIC ACID) |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> · Class · Label · Class · Label | 8 Corrosive substances
8
8 Corrosive substances
8 |
| <ul style="list-style-type: none"> · IMDG, IATA <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> · Class · Label | 8 Corrosive substances
8 |
| <ul style="list-style-type: none"> · Packing group · DOT, IMDG, IATA | II |
| <ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: | No |

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: BRIGHT EZE

(Contd. of page 8)

<ul style="list-style-type: none"> · Special precautions for user · Hazard identification number (Kemler code): 80 · EMS Number: · Segregation groups · Stowage Category · Stowage Code 	<p>Warning: Corrosive substances</p> <p>F-A,S-B (SGG1) Acids B SW2 Clear of living quarters.</p>
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: · DOT · Quantity limitations 	<p>On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L</p>
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN 1760 CORROSIVE LIQUID, N.O.S. (PHOSPHORIC ACID, SOLUTION, NITRIC ACID), 8, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

7697-37-2 | nitric acid

- **Section 313 (Specific toxic chemical listings):**

All ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

- **Hazardous Air Pollutants**

None of the ingredients is listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

(Contd. on page 10)

-US-

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: **BRIGHT EZE**

(Contd. of page 9)

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



- **Signal word** Danger

- **Hazard-determining components of labeling:**

phosphoric acid

nitric acid

- **Hazard statements**

May be corrosive to metals.

Causes severe skin burns and eye damage.

- **Precautionary statements**

Keep out of reach of children.

Keep only in original container.

Do not breathe dusts or mists.

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

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 person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Store locked up.

Store in corrosive resistant container with a resistant inner liner.

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

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Contact:**

Jim Faller/Ben Pesigan

Jim Faller / Ben Pesigan

- **Date of preparation / last revision** 03/12/2024

(Contd. on page 11)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/12/2024

Reviewed on 03/12/2024

Trade name: BRIGHT EZE

(Contd. of page 10)

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Corrosive to Metals 1: Corrosive to metals – Category 1
Skin Corrosion 1A: Skin corrosion/irritation – Category 1A
Eye Damage 1: Serious eye damage/eye irritation – Category 1

*** Data compared to the previous version altered.**

US