

SAFETY DATA SHEET

1. Identification

| Product identifier | LBA™ | | |
|---------------------------------|--|--------------------|--|
| Other means of identification | None. | | |
| Recommended use | Not available. | | |
| Recommended restrictions | None known. | | |
| Manufacturer/Importer/Supplier/ | Distributor information | | |
| Manufacturer | | | |
| Company name | CETCO, an MTI Company | | |
| Address | 2870 Forbs Avenue | | |
| | Hoffman Estates, IL 60192 | | |
| Telephone | United States General Information | 800 527-9948 | |
| Website | http://www.cetco.com/ | 000 327-3340 | |
| E-mail | safetydata@mineralstech.c | om | |
| Emergency phone number | Emergency | 1.866.519.4752/- | 1 760 476 3962 |
| Supplier | Not available. | | |
| 2. Hazard identification | | | |
| | | | |
| Physical hazards | Not classified. | | |
| Health hazards | Skin corrosion/irritation | | Category 1 |
| | Serious eye damage/eye irr | itation | Category 1 |
| | Sensitization, skin | | Category 1 |
| Environmental hazards | Not classified. | | |
| Label elements | | | |
| | \land | | |
| | | | |
| | | | |
| Signal word | Danger | | |
| Hazard statement | 0 | ind eve damage. M | lay cause an allergic skin reaction. Causes serious |
| | eye damage. | | |
| Precautionary statement | | | |
| Prevention | Keep out of reach of children. Read label before use. Do not breathe mist or vapor. Wash | | |
| | | | smoke when using this product. Contaminated work |
| | clothing should not be allowed out of the workplace. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face | | |
| | protection. | | 9 |
| Response | | | tainer or label at hand. IF SWALLOWED: Rinse |
| | | | (or hair): Take off immediately all contaminated ALED: Remove person to fresh air and keep |
| | | | cautiously with water for several minutes. Remove |
| | contact lenses, if present ar | nd easy to do. Con | tinue rinsing. Immediately call a POISON |
| | | | this label). If skin irritation or rash occurs: Get ed clothing and wash it before reuse. |
| Storage | Store locked up. | | של היסהווווט מווע שמסודוג שבוטוב ובעטב. |
| - | • | or in accordance w | with local/regional/actional/international regulations |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of contents/container in accordance with local regulation. | | |
| Other hazards | None known. | | - |
| Supplemental information | | of component(a) | of unknown aguta darmal taxiaity 19% of the mixture |

Supplemental information 42% of the mixture consists of component(s) of unknown acute dermal toxicity. 42% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 42% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % | |
|---|--|--|---|--|
| HYDROXYACETIC ACID | | 79-14-1 | 40 - < 50 | |
| TETRASODIUM EDTA | | 64-02-8 | < 1 | |
| Other components below reporta | able levels | | 50 - < 60 | |
| M: M-factor PBT: persistent, bioaccumulative al vPvB: very persistent and very bioa All concentrations are in percent by | | | lume. *Designates that | |
| Composition comments | The full text for all R- and H-phrases is displate a carcinogen by IARC, ACGIH, NTP, or O | | ct is not considered to | |
| 4. First-aid measures | | | | |
| Inhalation | If exposed to excessive levels of dusts or fur cough or other symptoms develop. Move to fr not use mouth-to-mouth method if victim inha the aid of a pocket mask equipped with a one device. Get medical attention immediately. | resh air. Oxygen or artificial re aled the substance. Induce ar | espiration if needed. Do tificial respiration with | |
| Skin contact | Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops or persists. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. For minor skin contact, avoid spreading material on unaffected skin. Wash contaminated clothing before reuse. Wash clothing separately before reuse. | | | |
| Eye contact | Immediately flush eyes with plenty of water for present and easy to do. Continue rinsing. Call | | | |
| Ingestion | Call a physician or poison control center imm vomiting. If vomiting occurs, keep head low s not use mouth-to-mouth method if victim inge the aid of a pocket mask equipped with a one device. | o that stomach content doesr ested the substance. Induce a | n't get into the lungs. Do Intificial respiration with | |
| Most important symptoms/effects, acute and delayed | Burning pain and severe corrosive skin dama include stinging, tearing, redness, swelling, a blindness could result. Prolonged exposure n | nd blurred vision. Permanent | | |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and tre immediately. While flushing, remove clothes ambulance. Continue flushing during transpo oxygen. Keep victim warm. Keep victim unde | which do not adhere to affect rt to hospital. In case of short | ed area. Call an ness of breath, give | |
| General information | In case of shortness of breath, give oxygen. I where possible). Ensure that medical person precautions to protect themselves. Show this victim warm. Wash contaminated clothing be | nel are aware of the material(safety data sheet to the doct | s) involved, and take | |
| 5. Fire-fighting measures | | | | |
| Suitable extinguishing media | Foam. Powder. Dry chemical, CO2, water spr surrounding fires. | ray or regular foam. Use any | media suitable for the | |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as th | is will spread the fire. | | |
| Specific hazards arising from the chemical | During fire, gases hazardous to health may b | e formed. | | |
| Special protective equipment and precautions for firefighters | As in any fire, wear self-contained breathing a (approved or equivalent) and full protective go | | MSHA/NIOSH | |
| Fire fighting equipment/instructions | Move containers from fire area if you can do | so without risk. | | |
| | Use standard firefighting procedures and con | sider the hazards of other in | aluad matariala | |
| Specific methods | Ose standard mengining procedures and con | | volved materials. | |

6. Accidental release measures

| o. Accidental release measures | | | | |
|---|--|--|--|--|
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. | | | |
| Methods and materials for containment and cleaning up | Stop leak if you can do so without risk. Use water spray to reduce vapors or divert vapor cloud drift. Should not be released into the environment. | | | |
| | Large Spills: Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. After removal flush contaminated area thoroughly with water. Following product recovery, flush area with water. | | | |
| | Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. | | | |
| | Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Large spills may be neutralized with dilute alkaline solutions of soda ash, or lime. | | | |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. | | | |
| 7. Handling and storage | | | | |
| Precautions for safe handling | Do not get this material in your eyes, on your skin, or on your clothing. Wash hands before eating. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not get this material on clothing. When using, do not eat, drink or smoke. Do not use in areas without adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. Remove and wash contaminated clothing before re-use. | | | |
| Conditions for safe storage, including any incompatibilities | Store locked up. Keep in a dry, cool and well-ventilated place. Store in tightly closed container. Keep this material away from food, drink and animal feed. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS). | | | |
| 8 Exposure controls/personal protection | | | | |

8. Exposure controls/personal protection

| | • |
|-------------------------------------|---|
| Occupational exposure limits | No exposure limits noted for ingredient(s). |
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Appropriate 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. Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be available when handling this product. Good general ventilation should be sufficient to control airborne levels. |
| Individual protection measures | , such as personal protective equipment |
| Eye/face protection | Face shield is recommended. Chemical respirator with organic vapor cartridge and full facepiece. Do not get in eyes. Applicable for industrial settings only. |
| Skin protection | |
| Hand protection | Wear appropriate chemical resistant gloves. Applicable for industrial settings only. |
| Other | Do not get this material in contact with skin. Wear chemical protective equipment that is specifically recommended by the manufacturer. Use of an impervious apron is recommended. It may provide little or no thermal protection. Applicable for industrial settings only. Launder contaminated clothing before reuse. |
| Respiratory protection | Chemical respirator with organic vapor cartridge and full facepiece. Applicable for industrial settings only. Not normally needed. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | When using, do not eat, drink or smoke. Do not get this material on clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Use good industrial hygiene practices in handling this material. Eye wash fountain and emergency showers are recommended. |
| | |

9. Physical and chemical properties

| 3 | . Physical and chemical p | nopenies |
|---|--|--|
| Α | ppearance | |
| | Physical state | Liquid. |
| | Form | Liquid. |
| | Color | Amber. |
| C | dor | Slight. Of burnt sugar. |
| C | dor threshold | Not available. |
| р | н | 1.2 @ 25C |
| N | lelting point/freezing point | 50 °F (10 °C) - precipitates / 158.9 °F (70.5 °C) estimated |
| | nitial boiling point and boiling ange | 233.6 °F (112 °C) |
| F | lash point | Not available. |
| E | vaporation rate | Not available. |
| F | lammability (solid, gas) | Not applicable. |
| U | pper/lower flammability or exp | losive limits |
| | Flammability limit - lower (%) | Not available. |
| | Flammability limit - upper (%) | Not available. |
| | Explosive limit - lower (%) | Not available. |
| | Explosive limit - upper (%) | Not available. |
| ۷ | apor pressure | 0.01 hPa estimated |
| V | apor density | Not available. |
| R | elative density | Not available. |
| S | olubility(ies) | |
| | Solubility (water) | Not available. |
| | artition coefficient n-octanol/water) | Not available. |
| Α | uto-ignition temperature | Not available. |
| D | ecomposition temperature | Not available. |
| ۷ | liscosity | Not available. |
| C | Other information | |
| | Density | 1.23 g/cm3 estimated |
| | Explosive properties | Not explosive. |
| | Oxidizing properties | Not oxidizing. |
| | Percent volatile | 48 % estimated |
| | Specific gravity | 1.17 |
| 1 | 0. Stability and reactivity | |
| R | leactivity | Reacts violently with strong alkaline substances. This product may react |
| | | |

| Reactivity | Reacts violently with strong alkaline substances. This product may react with reducing agents. |
|-------------------------------------|---|
| Chemical stability | Stable at normal conditions. |
| Possibility of hazardous reactions | Hazardous polymerization does not occur. Will not occur. |
| Conditions to avoid | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials. |
| Incompatible materials | This product may react with strong oxidizing agents. Bases. Reducing agents. Contact with most metals produces highly flammable hydrogen gas. |
| Hazardous decomposition products | Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. |
| | |

11. Toxicological information

Information on likely routes of exposure

May cause damage to organs by inhalation. May cause irritation to the respiratory system.

Inhalation

| Skin contact | Causes severe skin burns. May cause ar | Causes severe skin burns. May cause an allergic skin reaction. | | |
|--|---|--|--|--|
| Eye contact | Causes serious eye damage. | | | |
| Ingestion | Causes digestive tract burns. | | | |
| Symptoms related to the physical, chemical and toxicological characteristics | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. | | | |
| Information on toxicological ef | fects | | | |
| Acute toxicity | Causes burns. Not known. | | | |
| Product | Species Test Results | | | |
| LBA™ | | | | |
| Acute | | | | |
| Inhalation | | | | |
| LC50 | Rat | 10.27 mg/l/4h | | |
| Components | Species | Test Results | | |
| HYDROXYACETIC ACID (CAS 7 | 9-14-1) | | | |
| <u>Acute</u> | | | | |
| Inhalation | | 77 44 | | |
| LC50 | Rat | 7.7 mg/l/4h | | |
| Oral | Det | 1050 mg///g | | |
| | Rat | 1950 mg/kg | | |
| TETRASODIUM EDTA (CAS 64-0 | J2-8) | | | |
| <u>Acute</u> Oral | | | | |
| LD50 | Rat | > 2000 mg/kg | | |
| | | 10000 mg/kg | | |
| Skin corrosion/irritation | Causes severe skin burns and eve dama | | | |
| Serious eye damage/eye | Causes severe skin burns and eye damage. Causes serious eye damage. | | | |
| irritation | | | | |
| Respiratory or skin sensitizatio | | | | |
| Respiratory sensitization | Not a respiratory sensitizer. | | | |
| Skin sensitization | May cause an allergic skin reaction. | | | |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | | | |
| Carcinogenicity | Not available. | | | |
| Reproductive toxicity | | This product is not expected to cause reproductive or developmental effects. | | |
| Specific target organ toxicity - single exposure | Not classified. | | | |
| Specific target organ toxicity - repeated exposure | Not classified. | | | |
| Aspiration hazard | Not an aspiration hazard. | | | |
| Chronic effects | May cause damage to organs through prolonged or repeated exposure. | | | |
| 12. Ecological informatio | n | | | |
| Ecotoxicity | | ul to aquatic life. Because of the low pH of this product, i ecotoxicity upon exposure to aquatic organisms and s product. | | |
| Components | Species Test Results | | | |
| HYDROXYACETIC ACID (C | AS 79-14-1) | | | |
| Aquatic | | | | |
| Fish | LC50 Fish | 5000.0001 mg/L, 96 Hours | | |

| Components | | Species | Test Results | |
|---|---|----------------------------|---|--|
| TETRASODIUM EDTA (CAS | 64-02-8) | | | |
| Aquatic | | | | |
| Algae | IC50 | Algae | 1.01 mg/L, 72 Hours | |
| Fish | LC50 | Fish | 41 mg/L, 96 Hours | |
| ersistence and degradability | No data is | available on the degrad | ability of this product. | |
| ioaccumulative potential | | C C | | |
| Partition coefficient n-octar | ol / water (l | og Kow) -1. | 11 | |
| lobility in soil | No data a | vailable. | | |
| ther adverse effects | | | ffects (e.g. ozone depletion, photochemical ozone creation bal warming potential) are expected from this component. | |
| 3. Disposal consideration | ns | | | |
| Disposal instructions | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance wit local/regional/national/international regulations. | | | |
| ocal disposal regulations | Dispose ir | n accordance with all app | plicable regulations. | |
| azardous waste code | The waste disposal c | | ed in discussion between the user, the producer and the wast | |
| Vaste from residues / unused roducts | Dispose of 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). | | | |
| contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. | | | |
| 4. Transport information | | | | |
| DG | | | | |
| UN number | UN3265 | | | |
| UN proper shipping name | CORROS | IVE LIQUID, ACIDIC, OF | RGANIC, N.O.S. | |
| Transport hazard class(es) | 0 | | | |
| Class Subsidiary risk | 8 | | | |
| Packing group | I | | | |
| Environmental hazards | D | | | |
| | r Read safe | ty instructions, SDS and | l emergency procedures before handling. | |
| АТА | | | | |
| UN number | UN3265 | | | |
| UN proper shipping name Transport hazard class(es) | Corrosive | liquid, acidic, organic, n | .o.s. (HYDROXYACETIC ACID) | |
| Class | 8 | | | |
| Subsidiary risk | - | | | |
| Packing group | II | | | |
| Environmental hazards | No. | | | |
| ERG Code | 8L | | | |
| Special precautions for use Other information | er Read safety instructions, SDS and emergency procedures before handling. | | | |
| Passenger and cargo aircraft | | ith restrictions. | | |
| Cargo aircraft only | Allowed w | ith restrictions. | | |
| ADG | | | | |
| UN number | UN3265 | | | |
| UN proper shipping name Transport hazard class(es) | | IVE LIQUID, ACIDIC, OF | 10ANIU, N.U.S. | |
| Class Subsidiary risk | 8 | | | |
| | _ | | | |

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Subsidiary risk

Packing group

Environmental hazards

Marine pollutant EmS

No. F-A, S-B Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Not established.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code



15. Regulatory information

| ier negalater y meridate | | | | |
|---|---|---------------------------|--|--|
| Canadian regulations | This product has been classified in accordance with the hazard criter contains all the information required by the HPR. | ia of the HPR and the SDS | | |
| Controlled Drugs and Substances Act | | | | |
| Not regulated. | | | | |
| Export Control List (CEPA 1999, Schedule 3) | | | | |
| Not listed. | | | | |
| Greenhouse Gases | | | | |
| Not listed. | | | | |
| Precursor Control Regulat | ions | | | |
| Not regulated. | | | | |
| International regulations | Young people under 18 years old are not allowed to work with this pr Directive 94/33/EC on the protection of young people at work. | oduct according to EU | | |
| Stockholm Convention | | | | |
| Not applicable. Rotterdam Convention | | | | |
| Not applicable. | | | | |
| Kyoto protocol | | | | |
| Not applicable. Montreal Protocol | | | | |
| Not applicable. | | | | |
| Basel Convention | | | | |
| Not applicable. | | | | |
| International Inventories | | | | |
| Country(s) or region | Inventory name | On inventory (yes/no)* | | |
| Australia | Australian Inventory of Chemical Substances (AICS) | No | | |
| Canada | Domestic Substances List (DSL) | Yes | | |
| Canada | Non-Domestic Substances List (NDSL) | No | | |
| China | Inventory of Existing Chemical Substances in China (IECSC) | No | | |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes | | |
| Europe | European List of Notified Chemical Substances (ELINCS) | No | | |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No | | |
| Korea | Existing Chemicals List (ECL) | No | | |
| New Zealand | New Zealand Inventory | No | | |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances | No | | |

(PICCS)

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|---|
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |
| | ents of this product comply with the inventory requirements administered by the gov components of the product are not listed or exempt from listing on the inventory adm | |
| 16. Other information | | |
| Issue date | 14-August-2018 | |
| Revision date | 05-September-2018 | |
| Version # | 13 | |
| Further information | This safety datasheet only contains information relating to safety and doe information or product specification. | s not replace any product |
| References | ACGIH EPA: AQUIRE database NLM: Hazardous Substances Data Base US. IARC Monographs on Occupational Exposures to Chemical Agents | |
| Disclaimer | The information provided in this Safety Data Sheet is correct to the best of information and belief at the date of its publication. The manufacturer exp representations, warranties, or guarantees as to its accuracy, reliability of assumes any liability, for its use. It is the user's responsibility to verify the completeness of such information for each particular use. | pressly does not make any r completeness nor |
| | Third party materials: Insofar as materials not manufactured or supplied used in conjunction with, or instead of this product, it is the responsibility from the manufacturer or supplier, all technical data and other properties other materials and to obtain all necessary information relating to them. N accepted in respect of the use of this product in conjunction with material CETCO, an MTI Company cannot anticipate all conditions under which th product, or the products of other manufacturers in combination with its protuce, and to assume liability for loss, injury, damage or expense due to information in the sheet was written based on the best knowledge and exavailable. | of the customer to obtain, relating to these and No liability can be Is from another supplier. his information and its roduct, may be used. It is nd disposal of the o improper use. The |
| Revision information | Hazard identification: Hazard statement Hazard identification: GHS Symbols Exposure controls/personal protection: Hand protection GHS: Classification | |