



Safety Data Sheet

SORBA-CROP MN 5%

SDS Number: 381 Revision: MAY 10, 2015

Section 1: IDENTIFICATION

Product Name: SORBA-CROP MN 7%

Other Identification:

Chemical Family: Liquid Manganese Fertilizer solution

Recommended Use of Chemical: Agricultural Industry – Fertilizer use

Manufacturer: CUSTOM AG FORMULATORS, INC
3430 S. Willow Ave
Fresno, CA 93725
Information: (559) 435-1052

Emergency Contact: CUSTOM AG FORMULATORS, Inc. (800) 355-4457

Section 2: HAZARD(S) IDENTIFICATION

Hazard(s):

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| Physical | Not Classified | |
| Health | Serious eye damage/ eye irritation | CATEGORY 1 |
| | Causes skin corrosion/ irritation | CATEGORY 2 |
| Environmental | Not Classified | |

Signal Word: DANGER

Hazard Statement(s): May be harmful in contact with skin. May cause serious eye damage.
May cause mild skin irritation.



Symbol(s):

Precautionary Statements**Prevention: Wash thoroughly after handling. Wear a face shield or goggles. Wear protective clothing****Section 3: COMPOSITION/INFORMATION on INGREDIENTS****Chemical Ingredients:** (See Section 8 for exposure guidelines)

| Chemical | Synonym Common Name | CAS No. | EINECS No. | % by Wt. |
|-------------------|---------------------|------------|------------|-------------|
| Manganese Nitrate | | 10377-66-9 | | Proprietary |
| Urea | | 57-13-6 | | Proprietary |

Section 4: FIRST AID MEASURES**Symptoms/Effects:**

Acute: Eye contact may cause serious eye damage. Repeated or prolonged skin contact may cause skin irritation.

Chronic: No known chronic effects.

Eyes: Immediately flush with large quantities of water for 15 minutes. Hold eyelids apart during irrigation to ensure thorough flushing of the entire area of the eye and lids. Obtain medical attention immediately.

Skin: Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain medical attention if irritation occurs.

Ingestion: If victim is conscious, give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat. Obtain medical attention.

Inhalation: Remove victim from contaminated atmosphere. If breathing is labored, administer oxygen. If breathing has ceased, clear airway and start CPR. Obtain medical attention.

Section 5: FIRE FIGHTING MEASURES**Flammable Properties:** (See Section 9 for additional flammable properties)

NFPA: **Health - 1** **Flammability - 0** **Reactivity - 0**

Extinguishing Media:

Suitable Extinguishing Media: Not flammable, use media suitable for combustibles involved in fire.

Unsuitable Extinguishing Media: None known

Protection of Firefighters:**Specific Hazards Arising from the Chemical:**

Physical Hazards: Heating (flames) of closed or sealed containers may cause violent rupture of container due to thermal expansion of compressed gases.

Protective Equipment and Precautions for Firefighters:

Firefighters should wear self-contained breathing apparatus (SCBA) and full fire-fighting turnout gear. Keep containers/storage vessels in fire area cooled with water spray.

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| Section 6: ACCIDENTAL RELEASE MEASURES |
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Personal Precautions: Use personal protective equipment specified in Section 8. Isolate the hazard area and deny entry to unnecessary, untrained and unprotected personnel.

Environmental Precautions: Keep out of "waters of the United States" because of potential aquatic toxicity.

Methods of Containment:

Small Release: Confine and absorb small releases with sand, earth or other inert absorbents.

Large Release: Shut off release if safe to do so. Dike spill area with earth, sand or other inert absorbents to prevent runoff into surface waterways storm drains or sewers.

Methods for Cleanup:

Small Release: Shovel up the absorbed material and place in drums for disposal as a chemical waste or recycle as a fertilizer as the original product was intended.

Large Release: Recover as much of the spilled product as possible using portable pump and hoses. Use recovered material as originally intended or dispose of as a chemical waste. Treat remaining material as a small release (above).

Other Information: Not applicable

Section 7: HANDLING and STORAGE

Handling: Avoid contact with eyes. Use only in a well-ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated contact with the skin.

Storage: Store in well-ventilated areas. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store totes and smaller containers out of direct sunlight at moderate temperatures. (See Section 10.5 for materials of construction.)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

| Chemical | OSHA PELs | | ACGIH TLVs | |
|----------------|-----------|--------|------------|------|
| | TWA | STEL/C | TLV | STEL |
| Not applicable | | | | |

Engineering Controls: Use adequate exhaust ventilation to prevent inhalation of product vapors. Keep eye wash/safety shower in areas where product is commonly handled.

Personal Protective Equipment (PPE):

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| Eye/Face Protection: | Chemical goggles and a full face shield. |
| Skin Protection: | Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse. |
| Respiratory Protection: | If conditions exist where mist may be generated, a NIOSH/MSHA approved mist respirator should be worn. |
| Hygiene Considerations: | There are no known hazards associated with this product when use as recommended, however common good industrial hygiene practices should be followed, such as washing thoroughly after handling and before eating or drinking. |

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| Section 9: PHYSICAL and CHEMICAL PROPERTIES |
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| Appearance: | Light yellow liquid |
| Odor: | slight Sweet Odor |
| Odor Threshold: | Not determined |
| pH: | 2-4 |
| Melting Point/Freezing Point: | Salt Out Temperature <32°F (<-0°C) (<i>Typical</i>) |
| Boiling Point: | ~222°F (106°C) |
| Flash Point: | Not applicable |
| Evaporation Rate: | Not applicable |
| Flammability: | Not applicable |
| Upper/Lower Flammability Limits: | Not applicable |
| Vapor Pressure: | Not determined |
| Vapor Density: | Not determined |
| Relative Density: | 1.20 (10.01 lbs/gal) (<i>Typical</i>) |
| Solubility (in water): | Complete |
| Partition Coefficient: | Not applicable |
| Auto-ignition Temperature: | Not applicable |
| Decomposition Temperature: | Data not available. |
| Viscosity: | Data not available. |

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| Section 10: STABILITY and REACTIVITY |
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| Reactivity: | Avoid interaction with heat (flames), oxidizers or acids. |
| Chemical Stability: | This is a stable product under normal (ambient) temperature and pressure conditions. |
| Possibility of Hazardous Reactions: | None known |
| Conditions to Avoid: | Heating above 120°F (48.9°C) |
| Incompatible Materials: | Strong oxidizers.. This product is not compatible with lead or mercury or their alloys. These materials of construction should not be used in handling systems or storage containers for this product. |
| Hazardous Decomposition Products: | None Known. |

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| Section 11: TOXICOLOGICAL INFORMATION |
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| Oral: | Not determined |
| Dermal: | Slightly irritating |
| Inhalation: | Not determined |
| Eyes: | Causes serious eye irritation/damage. |

SORBI-CROP Mn (CAS Mixture)

ACUTE

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| LD50 | Mouse | 7622 mg/kg estimated |
| | Rat6 | 3499 mg/kg estimated |

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

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| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not available. |
| Chronic effects | Prolonged inhalation may be harmful. |

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| Section 12: ECOLOGICAL INFORMATION |
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| Ecotoxicity: | Not determined. |
| Persistence & Degradability: | Not determined |
| Bioaccumulative Potential: | This product is not bioaccumulative. |
| Mobility in Soil: | Not determined |
| Other Adverse Effects: | Not determined |

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| Section 13: DISPOSAL CONSIDERATIONS |
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Consult federal, state and local regulations for disposal requirements.

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| Section 14: TRANSPORT INFORMATION |
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Basic Shipping Description:

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| Proper Shipping Name: | Not regulated by DOT |
| Hazard Classes: | Not applicable |
| Identification Number: | Not applicable |
| Packing Group: | Not applicable |
| Hazardous Substance: | No |
| Marine Pollutant: | No |

Additional Information:**Other DOT Requirements:**

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| Reportable Quantity: | Not applicable |
| Placard(s): | Not applicable |
| Label(s): | Not applicable |

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| USCG Classification: | Class 43, Misc. water solutions |
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International Transportation:

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| IMO: | Non-hazardous under IMO regulations. |
| IATA: | Non-hazardous under IATA regulations. |
| TDG (Canada): | Non-hazardous under TDG regulations. |
| ADR (Europe): | Non-hazardous under ADR regulations. |
| ADG (Australia): | Non-hazardous under ADG regulations. |

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| Emergency Response Guide: | Not applicable |
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| ERAP – Canada: | Not applicable |
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| Section 15: REGULATORY INFORMATION |
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U.S. Federal Regulations:

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| OSHA: | This product meets the criteria of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). |
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| TSCA: | Product is not contained in USEPA Toxic Substance Control Act Inventory. |
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CERCLA:**International Regulations:****Canada:**

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| WHMIS: | Not hazardous |
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| DSL/NDSL: | Not Applicable. |
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State regulations:

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| CA Proposition 65: | Warning: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. |
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Section 16: OTHER INFORMATION

REVISIONS: 5/10/2015

PREVIOUS REVISION: 4/1/2015

FURTHER INFORMATION:

The above information is based on data of which the manufacturer is aware and is believed to be correct as of the date hereon. Since the information contained herein may be applied under conditions beyond the manufacturer's control and which may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, the manufacturer does not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.