

SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY INFORMATION

Product Name(s) pH Max
Product Code(s): Not available.
Uses: For agricultural use.
Company: EST Inc/Max Systems LLC
Address: 15785 South Keeler Terrace Olathe KS 66062: USA
Telephone Number: (913) 764-4900 Fax Number:(913) 764-4901 Not available.
Emergency Telephone Number: 1-800 222-1222

Date Issued- June15, 2018

Date Revised- June 15, 2018

This SDS complies with the OSHA Hazard Communication Standard 29CFR1910.1200 as revised in May 2012 (GHS). It may not meet requirements in other countries.



SECTION 2 HAZARDS IDENTIFICATION

GHS Signal Word: None.
GHS Classification: Not classified as hazardous

GHS Hazard Statements: None.

GHS Precautionary Statements:	<u>Prevention:</u>	<u>Response:</u>
None.		None.
	<u>Storage:</u>	<u>Disposal:</u>
None.	None.	None.

Hazards Not Otherwise Classified: None.

GHS Assessment: Approximately 0% of this mixture consists of ingredient(s) of unknown acute toxicity.
Approximately 0% of the mixture consists of ingredient(s) of unknown hazards to the aquatic environment.

SECTION 3 COMPOSITION / INGREDIENTS

Component	CAS Number	EC Number	Concentration
Hydrogen Hydroxide	7732-18-5	231-791-2	50% – 70.0%
Organic Salt Nano Bond Fusion	Proprietary	---	50% – 70.0%

Other components are either non-hazardous or do not significantly contribute to the hazards of the product.

Trade Secret Claims: Specific chemical identity and/or exact percentage (concentration) of components has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES

First Aid - Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention, if irritation develops.
First Aid - Skin:	In case of contact, flush skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention immediately if irritation develops and/or persists. Wash contaminated clothing before reuse.
First Aid - Ingestion:	If swallowed and feel unwell, call a physician or poison control center. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.
First Aid - Inhalation:	If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.
Important Symptoms / Effects – Acute and Delayed:	Mild tissue inflammation.
Advice to Physician:	Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Extinguishing Media:	Treat surrounding material. Water spray, dry chemical, carbon dioxide, or foam is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.
Specific Hazards:	This product is not flammable. This product may give rise to hazardous vapors in a fire. Vapors/fumes may be irritating, corrosive and/or toxic.
Protective equipment and procedures for fire-fighters.	Wear full protective clothing and self-contained breathing apparatus.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Additional Advice:	None.
Spill Procedures:	Small spills: Wipe up spills with an absorbent towel/material and transfer into suitable containers for recovery or disposal. Finally, flush area with water/soap or an appropriate solvent, as this product is not appreciably soluble in water alone. Large spills: Contain spilled material if possible. Pump into suitable and properly labeled containers.
Personal Precautions:	Wear suitable protective clothing and equipment.
Environmental Precautions:	Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

SECTION 7 HANDLING AND STORAGE

- Handling:** Wear appropriate personal protection (See Section 8) when handling this material. The work area should be equipped with a safety shower and eye wash station. If exposed to the liquid, avoid contact with skin and eyes. Wash thoroughly after handling.
- Storage:** Keep container(s) tightly closed. Use and store this material at room temperature away from heat, direct sunlight and hot metal surfaces. Keep away from any incompatible materials (see Section 10).
- Additional Advice:** Store in original container. Store as directed by the manufacturer.



SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Occupational Exposure Standards:** Exposure limits are listed below, if they exist.
- Water:** None.
- Organic salt:** None.
- Engineering Control Measures:** Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.
- Respiratory Protection:** A NIOSH certified self-contained breathing apparatus or air purifying respirator may be used under conditions where airborne concentrations are expected to exceed exposure limits.
- Hand Protection:** The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation and skin damage (see glove manufacturer literature for information on permeability).
- Eye Protection:** Approved eye protection (safety glasses with side-shields or goggles) to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.
- Body Protection:** Impervious clothing should be worn as needed to prevent skin contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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|---|--------------------------|
| Physical State: | Liquid |
| Color: | Clear |
| Odor: | None |
| Odor Threshold: | Not available. |
| pH: | NA |
| Melting Point/Range (°C/°F): | Not available. |
| Boiling Point/Range (°C/°F): | ca. 100°C / 212°F |
| Flash Point (PMCC) (°C/°F): | Not flammable |
| Evaporation Rate: | Not available. |
| Flammability / Explosivity Limits in Air (%): | Not available. |
| Vapor Pressure: | 23.8 mmHg (25°C) (water) |
| Vapor Density (Air = 1): | Not available. |
| Freezing Point | <-27 F (-32 C) |

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Solubility in Water:	Completely soluble
Partition Coefficient:	Not available.
Autoignition Temperature (°C/°F):	Not available.
Decomposition Temperature (°C/°F):	Not available.
Viscosity:	Not available.
Explosive Properties:	None.
Oxidizing Properties:	None.
Volatile Organic Content (VOC) (g/l):	0 g/l (as defined by 40CFR51.100)

SECTION 10 STABILITY AND REACTIVITY

Reactivity:	Product will not undergo additional reaction.
Stability:	Stable under normal storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Contact with incompatible materials, excessive heat.
Incompatibilities:	Strong oxidizing agents.
Hazardous Decomposition Products:	Oxides of carbon, metal oxides, aliphatic and aromatic compounds, toxic by-products.

SECTION 11 TOXICOLOGICAL INFORMATION

If available, toxicity data for the product is given; otherwise component data is listed.

Acute Toxicity:	This product is not expected to be appreciably toxic. (Water) No data. (Organic salt) Oral LD50 (mouse) 5400 mg/kg (acid moiety); Dermal LD50 (rat) > 2000 mg/kg (acid moiety)
Skin Corrosion / Irritation:	The product may be slightly irritating to the skin. (Water) No data. (Organic salt) Slightly irritating to skin (rabbit – similar salt)
Serious Eye Damage / Irritation:	The product may be slightly irritating to the eyes. (Water) No data. (Organic salts) Slightly irritating to eye (rabbit – effects were fully reversible). (Organic salt) Slightly irritating to eye (rabbit – similar salt).
Respiratory or Skin Sensitization:	The product is not expected to be dermally sensitizing. (Water) No data. (Organic salts) Not dermally sensitizing (mouse local lymphnode assay). (Organic salt) Not dermally sensitizing (guinea pig – similar salt).
Mutagenicity:	This product is not expected to be mutagenic. (Water) No data. (Organic salts) Not mutagenic (Ames test, in vitro mammalian chromosome aberration test, mammalian cell gene mutation assay and micronucleus assay). (Organic salt) Not mutagenic (Ames test). Not mutagenic (chromosome

SECTION 11 TOXICOLOGICAL INFORMATION

aberration assay and rodent dominant lethal assay – acid moiety).

Carcinogenicity:	This product is not expected to be carcinogenic. (Water) No data. No data. (Organic salt) No data.
Reproductive / Developmental Toxicity:	This product is not expected to be reproductively or developmentally harmful. (Water) No data. (Water) No data. No data. (Organic salt) No data.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Single Exposure:	(Water) No data. (Organic Salt) No data (Organic salt) No data.
Chronic/Subchronic - Toxicity: Specific Target Organ/Systemic Toxicity – Repeated Exposure:	(Organic Sal) No data (Organic Salt) No data (Organic Salt) No data
Aspiration Hazard:	This product does not pose an appreciable aspiration hazard.
Additional Information:	None.

SECTION 12 ECOLOGICAL INFORMATION

If available, ecological data for the product is given; otherwise component data is listed.

Acute Ecotoxicity:	This product is not expected to be appreciably harmful to aquatic species. (Water) No data. (Organic salt) LC50 (Golden Orfe) 440 mg/l/48 hr (acid moiety);LC50 (Daphnia magna) 1535 mg/l/24 hr (acid moiety).
Mobility:	(Water) No data. (Organic salt) No data.
Persistence/Degradability:	(Water) No data. (Organic salt) Readily biodegradable (100%)
Bioaccumulation:	(Water) No data. (Organic salt) No data.
Other adverse effects:	None.

SECTION 13 DISPOSAL CONSIDERATION

Environmental precautions:	Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation. Neutralize with baking soda before discharging
Product Disposal:	Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to

SECTION 13 DISPOSAL CONSIDERATION

determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Container Disposal:

Do not remove label until container is thoroughly cleaned. Empty Containers may contain hazardous residues. Rinse with 5% Baking Soda solution before disposal. This material and its container must be disposed of in a safe way.

SECTION 14 TRANSPORT INFORMATION

DOT (US):

Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packaging Group:	None.
Reportable Quantity:	None.
Marine Pollutant:	None.

IATA:

Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packing Group:	None.

IMDG:

Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packing Group:	None.
Marine Pollutant:	None.

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.

SECTION 15 REGULATORY INFORMATION

US Toxic Substance Control Act:	All components of this product are in compliance with or exempt from the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
Canadian Domestic Substance List:	A component of this product is listed on the Canadian Non-Domestic Substance List. Limited quantities are permitted.
EU REACH:	All components of this product have been pre-listed or registered under REACH.
TSCA Sec.12(b) Export Notification:	This product does not contain a chemical at or above de minimis concentrations which requires reporting.
Canadian WHMIS Classification:	None. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

SECTION 15 REGULATORY INFORMATION

Massachusetts Right-To-Know:	This product does not contain materials subject to disclosure under the Massachusetts Right-To-Know Law.
New Jersey Right-To-Know:	This product does not contain materials subject to disclosure under the New Jersey Right-To-Know Law.
Pennsylvania Right-To-Know:	This product does not contain materials subject to disclosure under the Pennsylvania Right-To-Know Law.
California Proposition 65:	This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.
SARA TITLE III-Section 311/312 Categorization (40 CFR 370):	None.
SARA TITLE III-Section 313 (40 CFR 372):	This product does not contain materials which are listed in Section 313 at or above de minimis concentrations.
CERCLA Hazardous Substance (40 CFR 302)	This product does not contain materials subject to reporting under CERCLA and Section 304 of EPCRA.
Water Hazard Class (WGK):	This product is slightly water-endangering (WGK=1).
Other Chemical Inventories:	Australia (AICS): One or more component(s) are not listed. China (IECSC): All components of this product are listed. Japan (ENCS): One or more component(s) are not listed. Korea (KCI): All components of this product are listed. Philippines (PICCS): One or more component(s) are not listed. Taiwan (TCSI): All components of this product are listed.

SECTION 16 OTHER INFORMATION

NFPA Rating - HEALTH:	1		
NFPA Rating - FIRE:	0		
NFPA Rating - REACTIVITY:	0		
NFPA Rating - SPECIAL:	NONE		
SDS Date Issued:	6/15/2018		
SDS Current Version:	1.0	Version Date:	June 15, 2018
SDS Revision History:	v1.0 Initial version.		
Abbreviations:	GHS: Globally Harmonized System of Classification and Labeling of Chemicals CAS#: Chemical Abstract Services Number ACGIH: American Conference of Governmental Industrial Hygienists OSHA: Occupational Safety and Health Administration NFPA: National Fire Protection Association DOT: US Department of Transportation RCRA: US Resource Conservation and Recovery Act TLV: Threshold Limit Value TWA: Time-Weighted Average PEL: Permissible Exposure Limit STEL: Short Term Exposure Limit WEEL: Workplace Environmental Exposure Levels AIHA: American Industrial Hygiene Association NTP: National Toxicology Program IARC: International Agency for Research on Cancer LD50: Lethal Dose 50%		

SECTION 15 REGULATORY INFORMATION

LC50: Lethal Concentration 50% NOAEL: No
Observed Adverse Effect Level NOEL: No
Observed Effect Level
EC50: Effective Concentration 50%
LL50: Lethal Loading Rate 50% BCF
Bioconcentration Factor BOD:
Biological Oxygen Demand
Koc: Soil Organic Carbon Partition Coefficient. Tlm:
Median Tolerance Limit

Key References:

United States National Library of Medicine's TOXNET
Patty's Toxicology, 5th Edition
European Commission's Institute for Health and Consumer Protection
European Chemicals Agency (ECHA)
American Conference of Governmental Industrial Hygienists
International Agency for Research on Cancer
United States National Toxicology Program
United States Occupational Safety and Health Administration
United States Department of Transportation
Supplier Material Safety Data Sheets

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Prepared by:

Regulatory Compliance