	SAFETY DATA SHEET	
Soar Peach Mix	Date Prepared: 11/17/2014	Replaces: All Previous
	SECTION 1. IDENTIFICATION	
Product Name:	Soar Peach Mix	
Synonyms:	SOARPEACH	
Use:	Agricultural, Liquid Micronutrient	Fertilizer
Manufacturer:	Chemical Dynamics, Inc.	
	4206 Business Lane	
	Plant City FL 33566	
Phone:	813-752-4950	
Chemtrec (Emergency) Phone:	800-424-9300	

SECTION 2. HAZARDS IDENTIFICATION				
Pictogram	Signal Word	Hazard Class	Hazard Category	Hazard Statement
	WARNING	STOT: repeat exposure	Cat 2	May cause damage to central nervous system through prolonged or repeat exposure
Precautionary	Prevention: Do	not breathe vapors, mists	or sprays. Wash tho	•
Statements:	Use only outdoors or in a well-ventilated area.			
	<b>Response</b> : Get medical attention/advice if you feel unwell.			
	<b>Disposal</b> : Dispose of contents/containers in accordance with local/regional/national regulations (See Section 13 of SDS).			ocal/regional/national

SECTION 3. COMPOSITION			
Material	CAS #	EINECS #	%WT
Manganese Glucoheptonate	12565-60-5	Not Assigned	Withheld
Zinc Glucoheptonate	12565-63-8	Not Assigned	Withheld
Iron Glucoheptonate	25126-38-9	Not Assigned	Withheld

The chemical identities and/or exact composition of this product are being withheld as a Trade Secret, are below de minimus cut off limits or not classified as hazardous.

See product label for guaranteed analysis.

	SECTION 4. FIRST AID MEASURES
General:	In case of persisting adverse effects consult a physician. Treat symptomatically.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Drink large amounts of water. Never give
	anything by mouth to an unconscious person.
Skin Contact:	If on skin (or hair): Take off all contaminated clothing. Rinse skin with soap and
	water.
Inhalation:	If inhaled: Remove person to fresh air and keep comfortable for breathing. Provide
	artificial respiration if necessary. Seek medical attention if necessary.
Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses if present
	and easy to do. Continue rinsing. If eye irritation persists: get medical attention.
Acute Exposure	May cause slight, transient irritation of eyes and skin. Ingestion may be irritating to
Symptoms:	the gastrointestinal tract.
Chronic Exposure	Prolonged skin contact may result in dermatitis (inflammation and redness of skin).
Symptoms:	Manganese may lead to neurotoxicity that resembles Parkinson disease. These
	patients may have bradykinesia, resting tremor, psychiatric disturbances, and
	shuffling gait.

	SECTION 5. FIRE FIGHTING MEASURES
Extinguishing Media:	Water spray is recommended. Halon, foam, dry chemical, CO2 or any ABC class extinguisher are acceptable. Use extinguishing agent most appropriate to surrounding materials. Cool containers with water spray to avoid rupture due to thermal expansion.
Specific Hazards:	This product is an aqueous mixture which will not burn. In a fire this material may decompose and produce acrid vapors, manganese, iron, magnesium, zinc and boron compounds, sulfur oxides and carbon oxides.
Protective Equipment and Precautions for Fire-Fighters:	Wear self-contained breathing apparatus (SCBA) and full protective gear. Avoid inhaling combustion products. Fire run-off should be contained to prevent possible environmental damage.
NFPA Rating:	Health: 0, Fire: 0, Reactivity: 0

	SECTION 6. ACCIDENTAL RELEASE MEASURES
Precautions:	Isolate area. Keep unnecessary personnel away. Avoid splashing or spraying.
Protective	Impervious gloves (rubber, neoprene or nitrile), Long sleeved clothing.
Equipment:	Chemical splash-proof goggles.
	Chemical resistant apron and/or rubber boots may be needed.
Containment:	Stop flow of material if safe to do so. Dike area with diatomaceous earth or sand
	and maximize recovery.
Clean Up:	Pump into a suitable tank or absorb with diatomaceous earth or sand. Sweep up
	and place into suitable containers for agronomical land application at
	recommended label rates or dispose of in accordance with local/regional/national
	regulations (See Section 13 of SDS).

Precautions for safe handling:         Avoid contact with skin and eyes. Do not breathe sprays, vapors or mists. Do not eat, drink or use tobacco products when handling this material. Apply product in open areas. Keep away from children and pets. Do not contaminate feed, seed or any water sources. Launder work clothes frequently and separate from other laundry.           Conditions for safe storage:         Store in original containers in a well-ventilated, cool, dry place, away from direct go below 32°F. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.           Incompatibilities:         Water reactive materials, strong oxidizers           SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION           Component Exposure Limits:         Manganese Glucoheptonate         5 mg/m <sup>3</sup> Not Established 300 mg/m <sup>3</sup> 10.0LH, NIOSH (as Mn compounds)           Imaginal Sourg/m <sup>3</sup> FEL, OSHA         0.2 mg/m <sup>3</sup> 0.2 mg/m <sup>3</sup> 30 mg/m <sup>3</sup> 10.0LH, NIOSH (as Mn)           I mg/m <sup>3</sup> FEL, NIOSH (as Mn)         1 mg/m <sup>3</sup> 3 mg/m <sup>3</sup> 3 mg/m <sup>3</sup> 2 FEL, NIOSH (Iron Soluble Salts, as Fe) Not Established 1 mg/m <sup>3</sup> 2 REL, NIOSH (Iron Soluble Salts, as Fe) Not Established 3 mg/m <sup>3</sup> 3 REL, NIOSH           All other components in product         Not Established 2 Respiratory: Not Established 3 STEL, NIOSH           Personal Personal         Eves: Chemical splash-proof goggles (where splashing is possible) Skin: Impervious gloves (rubber, neoprene or nitrile), long sleeved clothing. Chemically resistant apron is recommended. Respiratory: None required for ambient air concentrations (i.e. in the open under normal agronomic conditions) not exceeding occup	SECTION 7. HANDLING AND STORAGE			
open areas. Keep away from children and pets. Do not contaminate feed, seed or any water sources. Launder work clothes frequently and separate from other laundry.           Conditions for safe storage:         Store in original containers in a well-ventilated, cool, dry place, away from direct sunlight, sources of intense heat, or where freezing is possible. Do not let product go below 32°F. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.           Incompatibilities:         Water reactive materials, strong oxidizers           SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION           Component Exposure Limits:         Manganese Glucoheptonate         5 mg/m <sup>3</sup> Not Established 0.2 mg/m <sup>3</sup> TLV, ACGIH (as Mn compounds)           SOO mg/m <sup>3</sup> IDEL, NIOSH (as Mn) 1 mg/m <sup>3</sup> TWA, NIOSH (as Mn)           1 mg/m <sup>3</sup> Mag/m <sup>3</sup> STEL, NIOSH (as Mn)           1 mg/m <sup>3</sup> Mot Established         IDLH, NIOSH SOG Mg/m <sup>3</sup> Not Established           All other components in product         1 mg/m <sup>3</sup> Not Established         STEL, NIOSH Mot Established           All other components in product         Not Established         STEL, NIOSH Not Established           Not Established         TUA, NIOSH Mot Established         TUA, NIOSH Mot Established           Personal         Eves: Chemical splash-proof goggles (whre splashing is possible) Skin: Impervious gloves (rubber, neoprene or nitrile), long sleeved clothing. Chemically resistant apron is recommended. Respiratory rotection may be required for ambient air concentrations (i.e. in th	Precautions for	Avoid contact with skin and eyes. Do not breathe sprays, vapors or mists. Do not		
any water sources. Launder work clothes frequently and separate from other laundry.         Conditions for safe storage:       Store in original containers in a well-ventilated, cool, dry place, away from direct go below 32°F. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.         Incompatibilities:       Water reactive materials, strong oxidizers         SECTION 8. EXPOSURE       CONTROLS / PERSONAL PROTECTION         Component Exposure Limits:       Manganese Glucoheptonate       5 mg/m³       PEL, OSHA (as Mn compounds)         0.2 mg/m³       TLV, ACGIH (as Mn compounds)       0.2 mg/m³       TUV, ACGIH (as Mn)         1 mg/m³       TWA, NIOSH (as Mn)       1 mg/m³       TWA, NIOSH (as Mn)         1 mg/m³       TREL, OSHA (Iron Soluble Salts, as Fe)       1 mg/m³       TWA, NIOSH (as Mn)         1 mg/m³       TRU, NIOSH (as Mn)       1 mg/m³       TRU, NIOSH (as Mn)         1 mg/m³       TWA, ACGIH (Iron Soluble Salts, as Fe)       Not Established       IDLH, NIOSH         Not Established       IDLH, NIOSH       Manganese       Fe)       Not Established       IDLH, NIOSH         Not Established       IDLH, NIOSH       Manganese       Not Established       IDLH, NIOSH       Not Established       Fe)       Not Established       IDLH, NIOSH         Not Established       IDLH, NIOSH       Not Estab	safe handling:	eat, drink or use tobacco products when handling this material. Apply product in		
laundry.           Conditions for safe storage:         Store in original containers in a well-ventilated, cool, dry place, away from direct sunlight, sources of intense heat, or where freezing is possible. Do not let product go below 32°F. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.           Incompatibilities:         Water reactive materials, strong oxidizers           SECTION 8. EXPOSURE         CONTROLS / PERSONAL PROTECTION           Component Exposure Limits:         Manganese Glucoheptonate         5 mg/m <sup>3</sup> PEL, OSHA (as Mn compounds)           O.2 mg/m <sup>3</sup> TLV, ACGIH (as Mn compounds)         0.2 mg/m <sup>3</sup> TLV, ACGIH (as Mn)           0.2 mg/m <sup>3</sup> TLV, ACGIH (as Mn compounds)         0.2 mg/m <sup>3</sup> STEL, NIOSH (as Mn)           1 mg/m <sup>3</sup> TWA, NIOSH (as Mn)         1 mg/m <sup>3</sup> TWA, ACGIH (Iron Soluble Salts, as Fe)           1 mg/m <sup>3</sup> TWA, ACGIH (Iron Soluble Salts, as Fe)         1 mg/m <sup>3</sup> TWA, ACGIH (Iron Soluble Salts, as Fe)           Not Established         IDLH, NIOSH         Not Established         TWA, ACGIH         Not Stablished           In product         Not Established         TWA, ACGIH         Not Established         Not Stablished         Not Stablished           In product         Not Established         TWA, ACGIH         Not Stablished         Not Stablished         Stel, N		open areas. Keep away from children and pets. Do not contaminate feed, seed or		
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safe storage:       sunlight, sources of intense heat, or where freezing is possible. Do not let product go below 32°F. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.         Incompatibilities:       Water reactive materials, strong oxidizers         SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION         Component Exposure Limits:       Manganese         Glucoheptonate       5 mg/m³       PEL, OSHA (as Mn compounds)         Not Established       STEL, OSHA         0.2 mg/m³       TUV, ACGIH (as Mn)         1 mg/m³       TWA, NIOSH (as Mn)         3 mg/m³       STEL, NIOSH (as Mn)         1 mg/m³       TWA, ACGIH (tron Soluble Salts, as Fe)         1 mg/m³       REL, NIOSH (Iron Soluble Salts, as Fe)         Not Established       STEL, NIOSH         Not Established       STEL, NIOSH         Not Established       IDLH, NIOSH         N				
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are properly labeled and not damaged.           Incompatibilities:         Water reactive materials, strong oxidizers           SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION           Component Exposure Limits:         Manganese Glucoheptonate         5 mg/m <sup>3</sup> PEL, OSHA (as Mn compounds)           0.2 mg/m <sup>3</sup> TLV, ACGIH (as Mn)         mompounds)         500 mg/m <sup>3</sup> TLV, ACGIH (as Mn)           1 mg/m <sup>3</sup> TWA, NIOSH (as Mn)         mg/m <sup>3</sup> STEL, NIOSH (as Mn)           1 mg/m <sup>3</sup> STEL, NIOSH (as Mn)         mg/m <sup>3</sup> STEL, NIOSH (as Mn)           1 mg/m <sup>3</sup> TWA, NIOSH (as Mn)         mg/m <sup>3</sup> STEL, NIOSH (as Mn)           1 mg/m <sup>3</sup> TWA, ACGIH (Iron Soluble Salts, as Fe)         Not Established         IDLH, NIOSH           1 mg/m <sup>3</sup> REL, NIOSH (Iron Soluble Salts, as Fe)         Not Established         STEL, NIOSH           Not Established         IDLH, NIOSH         Not Established         STEL, NIOSH           Not Established         IDLH, NIOSH         Not Established         STEL, NIOSH           Not Established         STEL, NIOSH         Not Established         STEL, NIOSH           Respiratory         Provide local exhaust ventilation and wash facilities.         Controls:           Personal         Eves:	safe storage:	<b>—</b>		
Incompatibilities:         Water reactive materials, strong oxidizers           SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION           Component Exposure Limits:         Manganese Glucoheptonate         5 mg/m <sup>3</sup> PEL, OSHA (as Mn compounds)           0.2 mg/m <sup>3</sup> TLV, ACGIH (as Mn compounds)         Not Established         STEL, OSHA           0.2 mg/m <sup>3</sup> TLV, ACGIH (as Mn compounds)         500 mg/m <sup>3</sup> IDLH, NIOSH (as Mn)           1 mg/m <sup>3</sup> TWA, NIOSH (as Mn)         3 mg/m <sup>3</sup> STEL, NIOSH (as Mn)           1 mg/m <sup>3</sup> STEL, OSHA (iron Soluble Salts, as Fe)         1 mg/m <sup>3</sup> TWA, ACGIH (iron Soluble Salts, as Fe)           Not Established         IDLH, NIOSH         1 mg/m <sup>3</sup> TWA, ACGIH (iron Soluble Salts, as Fe)           Not Established         IDLH, NIOSH         1 mg/m <sup>3</sup> REL, NIOSH           1 mg/m <sup>3</sup> REL, NIOSH         Not Established         IDLH, NIOSH           Not Established         IDLH, NIOSH         Not Established         IDLH, NIOSH           Rengineering Controls:         Provide local exhaust ventilation and wash facilities.         Not Established         STEL, NIOSH           Presonal Protective         Eves: Chemical splash-proof goggles (where splashing is possible)         Skin: Impervious gloves (rubber, neoprene or nitrile), long sleeved clothing.		с ,	•	ainers before storage, to ensure containers
SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION           Component Exposure Limits:         Manganese Glucoheptonate         5 mg/m³         PEL, OSHA (as Mn compounds)           0.2 mg/m³         TLV, ACGIH (as Mn compounds)         0.2 mg/m³         TLV, ACGIH (as Mn)           1 mg/m³         TWA, NIOSH (as Mn)         1 mg/m³         STEL, NIOSH (as Mn)           1 mg/m³         TWA, NIOSH (as Mn)         1 mg/m³         STEL, NIOSH (as Mn)           1 mg/m³         TWA, NIOSH (as Mn)         1 mg/m³         STEL, NIOSH (as Mn)           1 mg/m³         TWA, ACGIH (Iron Soluble Salts, as Fe)         1 mg/m³         REL, NIOSH (Iron Soluble Salts, as Fe)           Not Established         IDLH, NIOSH         1 mg/m³         REL, NIOSH (Iron Soluble Salts, as Fe)           Not Established         IDLH, NIOSH         1 mg/m³         REL, NIOSH (Iron Soluble Salts, as Fe)           Not Established         IDLH, NIOSH         1 mg/m³         REL, NIOSH           Not Established         STEL, NIOSH         Not Established         Not Established           Not Established         IDLH, NIOSH         Not Established         Not Established           Not Established         STEL, NIOSH         Not Established         Not Established         StEL, NIOSH           Not Established         IDLH, NIOSH         Not Estab				
Component Exposure Limits:         Manganese Glucoheptonate         5 mg/m³         PEL, OSHA (as Mn compounds)           Not Established         STEL, OSHA           0.2 mg/m³         TLV, ACGIH (as Mn compounds)           500 mg/m³         IDLH, NIOSH (as Mn)           1 mg/m³         TWA, NIOSH (as Mn)           3 mg/m³         STEL, NIOSH (as Mn)           1 mg/m³         TWA, NIOSH (as Mn)           1 mg/m³         STEL, NIOSH (as Mn)           1 mg/m³         TWA, ACGIH (Iron Soluble Salts, as Fe)           1 mg/m³         TWA, ACGIH (Iron Soluble Salts, as Fe)           1 mg/m³         REL, NIOSH           1 mg/m³         REL, NIOSH (Iron Soluble Salts, as Fe)           Not Established         IDLH, NIOSH           1 mg/m³         REL, NIOSH           1 mg/m³         REL, NIOSH           1 mg/m³         REL, NIOSH           1 mg/m³         REL, NIOSH           Not Established         IDLH, NIOSH           Not Established         IDLH, NIOSH           Not Established         REL, NIOSH           Not Established         REL, NIOSH           Not Established         REL, NIOSH           Not Established         STEL, NIOSH           Not Established         STEL, NIOSH <th>Incompatibilities:</th> <th></th> <th></th> <th></th>	Incompatibilities:			
Exposure Limits:       Glucoheptonate       Not Established       STEL, OSHA         0.2 mg/m³       TLV, ACGIH (as Mn compounds)         500 mg/m³       IDLH, NIOSH (as Mn)         1 mg/m³       TWA, NIOSH (as Mn)         1 mg/m³       STEL, NIOSH (as Mn)         1 mg/m³       PEL, OSHA (Iron Soluble Salts, as Fe)         1 mg/m³       TWA, ACGIH (Iron Soluble Salts, as Fe)         1 mg/m³       TWA, ACGIH (Iron Soluble Salts, as Fe)         Not Established       IDLH, NIOSH         1 mg/m³       REL, NIOSH (Iron Soluble Salts, as Fe)         Not Established       IDLH, NIOSH         1 mg/m³       REL, NIOSH (Iron Soluble Salts, as Fe)         Not Established       IDLH, NIOSH         1 mg/m³       REL, NIOSH         All other components       Not Established         in product       Not Established         Not Established       TUL, NIOSH         Not Established       TUL, NIOSH         Not Established       TUL, NIOSH         Respiratory       Not Established         Provide local exhaust ventilation and wash facilities.         Controls:       Protide local exhaust ventilation and wash facilities.         Protective       Eyes: Chemical splash-proof goggles (where splashing is possible)		1		
0.2 mg/m³       TLV, ACGIH (as Mn compounds)         500 mg/m³       IDLH, NIOSH (as Mn)         1 mg/m³       TWA, NIOSH (as Mn)         3 mg/m³       STEL, NIOSH (as Mn)         3 mg/m³       STEL, NIOSH (as Mn)         1 mg/m³       PEL, OSHA (Iron Soluble Salts, as Fe)         1 mg/m³       TWA, ACGIH (Iron Soluble Salts, as Fe)         1 mg/m³       TWA, ACGIH (Iron Soluble Salts, as Fe)         Not Established       IDLH, NIOSH         1 mg/m³       REL, NIOSH (Iron Soluble Salts, as Fe)         Not Established       IDLH, NIOSH         1 mg/m³       REL, NIOSH         Not Established       STEL, NIOSH         Not Established       PEL, OSHA         Not Established       PEL, OSHA         Not Established       PEL, OSHA         Not Established       IDLH, NIOSH         Not Established       IDLH, NIOSH         Not Established       IDLH, NIOSH         Not Established       STEL, NIOSH         Stim:       <		-		
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1 mg/m³TWA, NIOSH (as Mn)3 mg/m³STEL, NIOSH (as Mn)3 mg/m³STEL, NIOSH (as Mn)1 mg/m³PEL, OSHA (Iron Soluble Salts, as Fe)1 mg/m³TWA, ACGIH (Iron Soluble Salts, as Fe)Not EstablishedIDLH, NIOSH1 mg/m³REL, NIOSH (Iron Soluble Salts, as Fe)Not EstablishedSTEL, NIOSHAll other componentsNot Establishedin productNot EstablishedNot EstablishedIDLH, NIOSHNot EstablishedIDLH, NIOSHNot EstablishedIDLH, NIOSHNot EstablishedIDLH, NIOSHNot EstablishedIDLH, NIOSHNot EstablishedREL, NIOSHNot EstablishedSTEL, NIOSHNot EstablishedSTEL, NIOSHNot EstablishedSTEL, NIOSHProvide local exhaust ventilation and wash facilities.Controls:Eyes: Chemical splash-proof goggles (where splashing is possible)ProtectiveSkin: Impervious gloves (rubber, neoprene or nitrile), long sleeved clothing.Equipment:Chemically resistant apron is recommended.Respiratory: None required for ambient air concentrations (i.e. in the open under normal agronomic conditions) not exceeding occupational exposure limits.Respiratory protection may be required in the event of a spill in an enclosed area.Use a NIOSH/MSHA approved SCBA with full face piece operated in a positive				
Income income3 mg/m³STEL, NIOSH (as Mn)Iron Glucoheptonate1 mg/m³PEL, OSHA (Iron Soluble Salts, as Fe)1 mg/m³TWA, ACGIH (Iron Soluble Salts, as Fe)1 mg/m³REL, NIOSH1 mg/m³REL, NIOSH (Iron Soluble Salts, as Fe)Not EstablishedIDLH, NIOSH1 mg/m³REL, NIOSH (Iron Soluble Salts, as Fe)Not EstablishedSTEL, NIOSHIn grom³REL, NIOSH (Iron Soluble Salts, as Fe)Not EstablishedSTEL, NIOSHIn grom³REL, NIOSHIn groductNot EstablishedNot EstablishedIDLH, NIOSHNot EstablishedIDLH, NIOSHNot EstablishedSTEL, NIOSHNot EstablishedSTEL, NIOSHProsvide local exhaust ventilation and wash facilities.Controls:Provide local exhaust ventilation and wash facilities.PersonalEyes: Chemical splash-proof goggles (where splashing is possible)ProtectiveSkin: Impervious gloves (rubber, neoprener or nitrile), long sleeved clothing.Equipment:Chemically resistant apron is recommended.Respiratory: None required for ambient air concentrations (i.e. in the open under normal agronomic conditions) not exceeding occupational exposure limits.Respiratory protection may be required in the event of a spill in an enclosed area.Use a NIOSH/MSHA approved SCBA with full face piece operated in a positive				
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	General:	Eye wash stations and safety shower recommended.		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance:	Dark, Opaque liquid		
Odor:	Slight sweet odor	UEL / LEL:	Not Applicable
Odor Threshold:	Not Available	Vapor Pressure:	Similar to water
pH:	4.0 to 4.5	Density:	1.26 to 1.29 g/cm <sup>3</sup>
Melting/Freezing Point:	< 0°C (32°F)	Solubility:	Water
Boiling Point:	> 100°C (212°F)	Log <sub>ow</sub> :	Not Available
Flash Point:	Not Applicable	Auto Ignition Temp:	Not Applicable
Evaporation Rate:	Similar to water	Decomposition Temp:	Not Available
Flammability (Solid/Gas):	Not Applicable	Viscosity	Not Available

SECTION 10. STABILITY AND REACTIVITY	
Reactivity:	Stable
Chemical Stability:	Stable under normal conditions
Possibility of Hazardous	Hazardous polymerization will not occur.
Reactions:	
Conditions to avoid:	Avoid exposure to extreme temperatures, contact with incompatible
	chemicals. Elevated temperatures may cause containers to rupture. Cold
	temperatures may cause product to salt out.
Incompatible Materials:	Water reactive materials, strong oxidizers.
Hazardous	Manganese, iron, magnesium, zinc and boron compounds, sulfur oxides and
<b>Decomposition Products:</b>	carbon oxides.

	SECTION 11. TOXILOGICAL INFORMATION
Acute Toxicity:	Manganese Glucoheptonate: LD50 oral (rat): Not available, but for an analog manganese compound: LD50 oral (rat) >5000 mg/kg Iron Glucoheptonate and all other components in this product: LD50 oral (rat): >2000 mg/kg
Likely Routes of	Inhalation, ingestion or skin absorption
Exposure:	
Symptoms and Signs of	Eyes: May cause mild irritation. May result in redness, tearing and blurred
Exposure:	vision.
	Skin: Ma cause mild irritation to the skin. May result in redness, itching and
	pain.
	Ingestion: May cause digestive tract irritation, with accompanying nausea,
	vomiting and diarrhea.
	Inhalation of mist may irritate or burn nose, throat and lungs. Coughing,
	nausea, headaches and weakness are possible.
	Effects are expected to be transient.

Chronic Effects:	<ul> <li>Prolonged skin contact may result in dermatitis (inflammation and redness of skin.</li> <li>Manganese may lead to neurotoxicity that resembles Parkinson disease.</li> <li>These patients may have bradykinesia, resting tremor, psychiatric disturbances, and shuffling gait. Also, chronic excess manganese inhalational exposures may lead to pulmonary inflammation and subsequent reactive airway disease.</li> </ul>
Carcinogenetic:	None of this product's components are listed by IARC, ACGIH, OSHA, NIOSH
	or NTP as carcinogenic.
Mutagenicity:	Not Available
<b>Reproductive Toxicity:</b>	Not Available

SECTION 12. ECOLOGICAL INFORMATION		
Ecotoxicity:	In high concentrations, this product may be harmful to both terrestrial and	
	aquatic plant or animal life.	
<b>Other Adverse Effects:</b>	Not harmful to ozone layer	
Ecotoxicity:	Manganese Glucoheptonate: Not Available. However, for analogous,	
	derived from water soluble manganese compound:	
	LC50 Daphnia magna (Water Flea): 15200 ug/L/48 hr; static	
	LC50 Canthocamptus sp (Harpacticoid Copepod): 150 ug/L/48 hr;	
	static	
	LC50 Pimephales promelas (Fathead Minnow): 30600 ug/L/96 hr;	
	flow through	
	Iron Glucoheptonate, Zinc Glucoheptonate and all other components of	
	product: Not Available	

SECTION 13. DISPOSAL CONSIDERATIONS	
General Information:	None
Disposal Instructions:	Agronomical land application at recommended rates or dispose of in
	accordance with local/regional/national regulations. Containers may be
	triple rinsed and offered for recycling.

SECTION 14. TRANSPORT INFORMATION		
This material is not hazardous as defined by 49 CFR 172.101 by the US Department of Transportation		
Proper Shipping Name:	Not Applicable	
Hazard Class:	Not Applicable	
UN Identification #:	Not Applicable	
Packing Group:	Not Applicable	
Required Label(s):	Not Applicable	
Emergency Response	Not Applicable	
Guide Number:		
Marine Pollutant:	Yes (Manganese)	

SECTION 15. REGULATORY INFORMATION	
TSCA Inventory Status	All intentional ingredients listed on the TSCA inventory.
DSCL (EEC) Status	All intentional ingredients listed on the DSCL inventory.
United States – SARA Hazard Category:	This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following categories:
	Fire – No, Pressure – No, Acute – No, Chronic – Yes, Reactive – No
SARA Title III	This product contains the following substances subject to the reporting
Information:	requirements of Title III (EPCRA) of the Superfund Amendments and
	Reauthorization Act of 1986 and 40 CFR Part 372:
Manganese and Zinc	CERCLA RQ (pounds): No RQ is assigned to this generic or broad class,
Glucoheptonates	(Manganese and Zinc compounds) although the class is a CERCLA hazardous
	substance. See 50 Federal Register 13456 (April 4, 1985).
	SARA Reporting, 302: No
	SARA Reporting, 304: No
	SARA Reporting, 313: : Yes, 1.0% de minimus concentration (N450,
	Manganese Compounds and N982, Zinc Compounds)
Iron Glucoheptonate and	CERCLA RQ (pounds): No
all other components	SARA Reporting, 302: No
	SARA Reporting, 304: No
	SARA Reporting, 313: No
Federal Insecticide,	This product is not a pesticide.
Fungicide, and	
Rodenticide Act	
State Regulations:	Other state regulations may apply. Check individual state requirements.
SECTION 16. OTHER INFORMATION	
Date of Revision:	11/17/2014, revision prepared in accordance with 29 CFR 1910.1200
	Appendix D to meet Global Harmonization Standards.
Disclaimer:	The information contained in this SDS refers only to the specific material
	designated and does not relate to any process or use with any other
	materials. This information is based on data believed to be accurate and
	reliable as of the date hereof. It is intended for use by persons possessing
	technical knowledge at their own discretion and risk. Because safety
	standards and regulations are subject to change and because Chemical
	Dynamics, Inc. has no continuing control over the material, those handling,
	storing or using the material should satisfy themselves that they have
	current information regarding the particular way the material is handled,
	stored or used and that the same is done in accordance with federal, state
	and local law. No warranty, expressed or implied, and no liability is assumed
	by Chemical Dynamics, Inc. in conjunction with the use of this information.
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	patents.