

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:	1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL SDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

**PRODUCT NAME: LEISURE TIME TWO-PACK METAL GON /
DEFENDER - Leisure Time Defender**

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Advantis Technologies 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America	REVISION DATE:	06/08/2015
	SUPERCEDES:	05/26/2015
	MSDS Number:	000000024465
	SYNONYMS:	
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
	FORMULA:	None established

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin irritation : Category 2
Eye irritation : Category 2B
Carcinogenicity : Category 2

GHS Label element

Hazard pictograms :



Signal word : Warning

Hazard statements : H227 Combustible liquid.
H315 Causes skin irritation.
H320 Causes eye irritation.

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P321 Specific treatment (see supplemental first aid instructions on this label).

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local regulation.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
GLYCINE, N- (2-BIS(CARBOXYMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt	139-89-9	0 - 10
Citric Acid	77-92-9	0 - 6
Trisodium nitrilotriacetate	5064-31-3	0 - 5

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

Inhalation: IF INHALED: Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops.

Skin Contact:	IF ON SKIN: Flush skin with water for 15 minutes. Take off all contaminated clothing. Seek medical attention if irritation develops.
Eye Contact:	IF IN EYES: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation develops.
Ingestion:	IF SWALLOWED: Immediately drink water to dilute. Seek medical attention if symptoms develop. Never give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA): Product is not known to be flammable, combustible, pyrophoric or explosive.

Flammable Properties

Flash Point:	No data.
Fire / Explosion Hazards:	0 - Will not burn
Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Fire Fighting Instructions:	Use water spray to cool unopened containers. In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus.
Hazardous Combustion Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Upper Flammable / Explosive Limit, % in air:	No data
Lower Flammable / Explosive Limit, % in air:	No data

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release:	Vapors may be suppressed by the use of water fog.
Water Release:	Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so.
Land Release:	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). After removal, flush contaminated area thoroughly with water. Avoid runoff into storm sewers and ditches which lead to waterways.
Additional Spill Information :	Prevent further leakage or spillage if safe to do so. Use personal protective equipment as required. Evacuate personnel to safe areas.

SECTION 7. HANDLING AND STORAGE

Handling:	Do not take internally. Avoid contact with skin, eyes and clothing. If in eyes or on skin, rinse well with water. Avoid breathing vapours, mist or gas.
Storage:	Store in a cool, dry and well ventilated place. Isolate from incompatible materials. Do not freeze.
Incompatible Materials for Storage:	Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: No exposure limits exist for the constituents of this product. Additional ventilation beyond that of general exhaust is not normally required.

Protective Equipment for Routine Use of Product

Respiratory Protection :	Respiratory protection not normally needed., If vapors, mists or aerosols are generated, wear a NIOSH approved respirator., A NIOSH approved air purifying respirator with organic vapor cartridge and N95 particulate filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.
Skin Protection :	Impervious gloves
Eye Protection:	Safety glasses with side-shields
Protective Clothing Type:	impervious clothing
General Protective Measures:	Ensure that eyewash stations and safety showers are close to the workstation location.

No hazardous ingredients

Components with workplace control parameters

no data available

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	No data.
Color:	No data.
Odor:	No data.
Molecular Weight:	None established
pH :	6.0 - 8.0 ()
Boiling Point:	212 °F (100 °C)
Melting point/freezing point	No data

Density	Not applicable
Vapor Pressure:	No data
Vapor Density:	> 1
Viscosity:	no data available
Solubility in Water:	Miscible
Partition coefficient n-octanol/water:	No data.
Evaporation Rate:	No data
Oxidizing:	None established
Volatiles, % by vol.:	No data
VOC Content	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489). This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.
HAP Content	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Stable under normal conditions., Product will not undergo hazardous polymerization.
Conditions to Avoid:	Heat, Avoid freezing.
Chemical Incompatibility:	Strong oxidizing agents
Hazardous Decomposition Products:	Oxides of nitrogen, Carbon oxides, Sulphur oxides, Hydrogen chloride gas
Decomposition Temperature:	No data

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

GLYCINE, N- (2-BIS(CARBOXYMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt	LD50	Approximately 10,000 mg/kg	Rat
Citric Acid	LD50	= 3,000 mg/kg	Rat
Trisodium nitrilotriacetate		> 1,100.0 mg/kg	Rat

Component Animal Toxicology

Dermal LD50 value:

GLYCINE, N- (2-BIS(CARBOXYMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt	no data available
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Citric Acid LD50 Believed to be > 2,000 mg/kg Rabbit

Component Animal Toxicology

Inhalation LC50 value:

GLYCINE, N- (2-BIS(CARBOXYMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt Rats exposed for 8 hours to an unknown concentration of the test substance resulted in no deaths and no clinical signs of toxicity observed in the animals.

Citric Acid no data available

Trisodium nitrilotriacetate LC50 4 h > 5 mg/l Rat

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be > 5,000 mg/kg Rat

Dermal LD50 value: LD50 Believed to be > 2,000 mg/kg Rabbit

Inhalation LC50 value: no data available

Skin Irritation: This material is expected to be slightly irritating.

Eye Irritation: This material is expected to be slightly irritating.

Skin Sensitization: This material is not known or reported to be a skin or respiratory sensitizer.

GLYCINE, N- (2-BIS(CARBOXYMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt A similar product was found to be a negative skin sensitizer in the Guinea pig maximization method test.

Trisodium nitrilotriacetate

Acute Toxicity: May cause mild skin and eye irritation. Ingestion may cause mild gastrointestinal discomfort. Inhalation of mist or vapor may cause irritation to the mucous membranes of the respiratory tract.

Subchronic / Chronic Toxicity: Not known or reported to cause subchronic or chronic toxicity.

Reproductive and Developmental Toxicity: Not known or reported to cause reproductive or developmental toxicity.

Citric Acid This chemical has been tested in laboratory animals and there was no evidence of reproductive toxicity or teratogenicity.

Mutagenicity: Not known or reported to be mutagenic.

GLYCINE, N- (2-BIS(CARBOXYMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt This product was determined to be non-mutagenic in the Ames assay.

Citric Acid This product was determined to be non-mutagenic in the Ames assay. It was also shown to be negative in

the Dominant lethal assay.

Carcinogenicity: The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 2B substance, Possibly Carcinogenic to Humans.

Citric Acid The carcinogenicity has been evaluated through animal study and it was found not to be carcinogenic.

Trisodium nitrilotriacetate The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 2B substance, Possibly Carcinogenic to Humans.

SECTION 12. ECOLOGICAL INFORMATION

Overview: Practically non- toxic to fish and other aquatic organisms.

Ecological Toxicity Values - Product:

- EC50 Believed to be approximately 4,100 mg/l (calculated)

Ecological Toxicity Values for: GLYCINE, N- (2-BIS(CARBOXYMETHYL)AMINO)ETHYL)-N-2-HYDROXYETHYL)-, Trisodium Salt

- Leuciscus idus (Golden orfe) - static test 96 h LC50 > 2,200 mg/l
- Daphnia magna (Water flea) - static test 48 h EC50 > 500 mg/l

Ecological Toxicity Values for: Citric Acid

- Lepomis macrochirus (Bluegill sunfish) - (static). 96 h LC50 = 1,516 mg/l
- Daphnia magna (Water flea) - 72 h EC50 Approximately 120 mg/l

Ecological Toxicity Values for: Trisodium nitrilotriacetate

- Lepomis macrochirus (Bluegill sunfish) - 96 h LC50 = 198 mg/l
- Pimephales promelas (fathead minnow) - 96 h LC50 = 127 mg/l
- Oncorhynchus mykiss (rainbow trout) - 96 h LC50 = 98 mg/l
- Daphnia magna (Water flea) - 48 h LC50 = 560 mg/l

SECTION 13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary : If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D. As a nonhazardous liquid waste, it should be disposed of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

DOT

Not dangerous goods

TDG

UN number : 3267
 Description of the goods : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
 (Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt, Trisodium nitrilotriacetate)
 Class : 8
 Packing group : II
 Labels : 8

IATA

UN number : 3267
 Description of the goods : Corrosive liquid, basic, organic, n.o.s.
 (Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt, Trisodium nitrilotriacetate)
 Class : 8
 Packing group : II
 Labels : 8
 Packing instruction (cargo aircraft) : 855
 Packing instruction (passenger aircraft) : 851
 Packing instruction (passenger aircraft) : Y840

IMDG-CODE

UN number : 3267
 Description of the goods : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
 (Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt, Trisodium nitrilotriacetate)
 Class : 8

Packing group : II
 Labels : 8
 EmS Number 1 : F-A
 EmS Number 2 : S-B

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium hydroxide	1310-73-2	1000	

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Sodium hydroxide 1310-73-2

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Sodium hydroxide 1310-73-2 0.324 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt	139-89-9
Sodium hydroxide	1310-73-2

New Jersey Right To Know

Glycine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(2-hydroxyethyl)-, trisodium salt	139-89-9
Citric acid	77-92-9
Sodium hydroxide	1310-73-2

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA	: The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.
	: dye Pylaklor Brill Green

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Major References : Available upon request.

SAFETY DATA SHEET

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT. .

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:	1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC@:	1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL SDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

**PRODUCT NAME: LEISURE TIME TWO-PACK METAL GON /
DEFENDER - Leisure Time Metal Gon**

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Advantis Technologies 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States of America	REVISION DATE:	05/26/2015
	SUPERCEDES:	04/13/2011
	MSDS Number:	000000024468
	SYNONYMS:	None
	CHEMICAL FAMILY:	None
	DESCRIPTION / USE	None established
	FORMULA:	None established

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin irritation : Category 2
Serious eye damage : Category 1

GHS Label element

Hazard pictograms : 

Signal word : Danger

Hazard statements : H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary statements : **Prevention:**
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/
face protection.
Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER or doctor/ physician.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P321 Specific treatment (see supplemental first aid instructions on this label).
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P362 + P364 Take off contaminated clothing and wash it before reuse.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
ETIDRONIC ACID	2809-21-4	0 - 7

SECTION 4. FIRST AID MEASURES

Inhalation: IF INHALED: Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops.

Skin Contact: IF ON SKIN: Immediately flush skin with plenty of water for 15 minutes. If clothing comes in contact with the product, the clothing should be removed immediately and laundered before re-use. Seek medical attention if irritation develops.

Eye Contact: IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.

Ingestion: IF SWALLOWED: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA): Product is not known to be flammable, combustible, pyrophoric or explosive.

Flammable Properties

Flash Point: No data.

Fire / Explosion Hazards: This material is not expected to burn unless all the water is boiled away. The remaining compounds may be ignitable.

Extinguishing Media: Choose extinguishing media suitable for surrounding materials.

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Fire Fighting Instructions:	In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus.
Hazardous Combustion Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Upper Flammable / Explosive Limit, % in air:	No data
Lower Flammable / Explosive Limit, % in air:	No data

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release:	Vapors may be suppressed by the use of water fog. Keep people away from and upwind of spill/leak.
Water Release:	If the product contaminates rivers and lakes or drains inform respective authorities.
Land Release:	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Do not contaminate ponds, waterways or ditches with chemical or used container.
Additional Spill Information :	Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

SECTION 7. HANDLING AND STORAGE

Handling:	Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing mist or vapor.
Storage:	Store in a cool, dry and well ventilated place. Keep containers tightly closed when not in use.
Incompatible Materials for Storage:	Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Local exhaust ventilation is recommended if vapors, mists, aerosols or dusts are generated. Otherwise, use general exhaust ventilation.

Protective Equipment for Routine Use of Product

Respiratory Protection : Respiratory protection not normally needed., If vapors, mists or aerosols are generated, wear a NIOSH approved respirator., A NIOSH approved full-face or half-face respirator in combination with chemical goggles., A NIOSH approved air purifying respirator with P100 filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.

Skin Protection : Wear impervious gloves to avoid skin contact.

Eye Protection: Use chemical goggles and a faceshield.

Protective Clothing Type: Impervious

General Protective Measures: An eye wash and safety shower should be provided in the immediate work area.

Components with workplace control parameters

no data available

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	No data.
Color:	No data.
Odor:	No data.
Molecular Weight:	None established
pH :	1.0 - 2.0 ()
Boiling Point:	212 °F (100 °C)
Melting point/freezing point	No data
Density	No data
Vapor Pressure:	No data
Vapor Density:	> 1
Viscosity:	no data available
Solubility in Water:	Soluble
Partition coefficient n-octanol/water:	No data.
Evaporation Rate:	No data
Oxidizing:	None established
Volatiles, % by vol.:	no data available

VOC Content	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489). This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.
HAP Content	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Stable under normal conditions., Product will not undergo hazardous polymerization.
Conditions to Avoid:	High temperatures
Chemical Incompatibility:	Strong oxidizing agents, Bases, Amines, metal salts
Hazardous Decomposition Products:	Carbon monoxide, Carbon dioxide, Phosphines may form after all water has been removed., phosphorus oxides, Oxides of nitrogen
Decomposition Temperature:	No data

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

ETIDRONIC ACID LD50 = 1,440 mg/kg Rat

Component Animal Toxicology

Dermal LD50 value:

ETIDRONIC ACID LD50 > 4,764 mg/kg Rabbit

Component Animal Toxicology

Inhalation LC50 value:

ETIDRONIC ACID No data

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be > 5,000 mg/kg Rat

Dermal LD50 value: LD50 Believed to be > 5,000 mg/kg Rabbit

Inhalation LC50 no data available

value:

Skin Irritation: This material is expected to be moderately irritating.

Eye Irritation: Corrosive to eyes.

Skin Sensitization: Negative skin sensitizer, guinea pig - Magnusson-Kligman method.

Acute Toxicity: This product is corrosive to the eyes, moderately irritating to the skin and upon inhalation, may cause irritation to mucous membranes and respiratory tract.

Subchronic / Chronic Toxicity: High oral exposure of a similar chemical to laboratory rodents has been shown to alter red and white cell count, decrease hemoglobin concentration and decrease the hematocrit value. This effect to blood occurred when they were fed a diet containing 3% HEDP-A. No effect was observed at a dietary concentration of 1%.,

The hematological effects observed in laboratory studies using rodents would be unlikely to occur in humans because of the high dose required.

Reproductive and Developmental Toxicity:	This product has been tested and was shown not to produce any adverse effects on reproductive function or fetal development when administered to laboratory animals.
ETIDRONIC ACID	This product has been tested and was shown not to produce any adverse effects on reproductive function or fetal development when administered to laboratory animals.
Mutagenicity:	This chemical has been tested and was shown to be non-mutagenic.
ETIDRONIC ACID	This chemical has been tested and was shown to be non-mutagenic.
Carcinogenicity:	This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. Chemicals of similar structure have been shown not to cause cancer in laboratory animals.
ETIDRONIC ACID	This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. Chemicals of similar structure have been shown not to cause cancer in laboratory animals.

SECTION 12. ECOLOGICAL INFORMATION

Overview: Practically non-toxic to fish and other aquatic organisms., Practically non-toxic to wildlife and domestic animals.

Ecological Toxicity Values for: ETIDRONIC ACID

Bluegill	-	96 h LC50 = 868 mg/l
Rainbow trout (<i>Salmo gairdneri</i>),	-	96 h LC50 = 368 mg/l
Channel Catfish (<i>Ictalurus punctatus rafinesque</i>),	-	96 h LC50 = 695 mg/l
Sheepshead minnow	-	96 h LC50 = 2,180 mg/l
Daphnia magna,	-	48 h EC50= 527 mg/l
Grass shrimp	-	96 h LC50= 1,770 mg/l
Oyster Shell Deposition	-	96 h EC50= 89 mg/l
Mallard duck	-	Oral LD50 > 2,510 mg/kg
Bobwhite quail	-	Oral LD50 > 2,510 mg/kg

SECTION 13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary : If this product becomes a waste, it will be a hazardous waste which is subject to the Land Disposal restrictions under 40 CFR 268 and must be managed accordingly.

Disposal Methods : As a hazardous liquid waste it must be disposed of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

DOT

Not dangerous goods

TDG

UN number : 3265
 Description of the goods : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
 (Etidronic acid)
 Class : 8
 Packing group : III
 Labels : 8

IATA

UN number : 3265
 Description of the goods : Corrosive liquid, acidic, organic, n.o.s.
 (Etidronic acid)
 Class : 8
 Packing group : III
 Labels : 8
 Packing instruction (cargo aircraft) : 856
 Packing instruction (passenger aircraft) : 852
 Packing instruction (passenger aircraft) : Y841

IMDG-CODE

UN number : 3265
 Description of the goods : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
 (Etidronic acid)
 Class : 8
 Packing group : III
 Labels : 8
 EmS Number 1 : F-A

EmS Number 2 : S-B

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

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No components are subject to the Pennsylvania Right to know act

New Jersey Right To Know

Etidronic acid 2809-21-4

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

: dye Sanoline Blue E-HRL

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: 1
Major References : Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT. .