

1 - Product and Company Identification

Product name: Cublen AP 1
Product type/usage/industry: Aqueous solution of an aminophosphonic acid
Manufacturer/Supplier Information: Zschimmer and Schwarz, Inc.
70 GA Hwy. 22 W
Milledgeville, GA 31061
Phone: (478) 454-1942
Emergency contact: **Company:** (478) 454-1942
CHEMTREC (24HR): (800) 424-9300

2 – Hazards Identification

Classification of the substance or mixture: Classification of this substance/mixture is based on
29 CFR 1910.1200/HazCom 2012 (GHS-US)

Serious Eye Damage/Irritation	Category 2A	H319	Causes serious eye irritation
Corrosive to Metals	Category 1	H290	May be corrosive to metals

Labelling:

Signal Word:

WARNING!

Hazard Symbols:



Precautionary Statements: P234: Keep only in original container.
P264: Wash thoroughly after handling.
P280: Wear eye protection/face protection.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P337+313: If eye irritation persists get medical advice/attention.
P390: Absorb spillage to prevent material damage.
P406: Store in a corrosive resistant container with a resistant inner liner.

Key to Hazard Categories:

1=Severe Hazard 2=Serious Hazard 3=Moderate Hazard 4=Slight Hazard 5=Minimal Hazard

3 – Composition/Information on Ingredients

<u>CAS Number</u>	<u>Material or component</u>	<u>Avg % weight</u>
6419-19-8	Nitritotrimethylenetris(phosphonic acid)	45 – 55%
13598-36-2	Phosphorous acid	2.5 – 10%

This is not intended to be a complete compositional disclosure. Information provided pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200/ HazCom 2012). See Section 8 for Exposure Limits, if any.

4 - First Aid Measures

Eyes:	Rinse cautiously with water for several (15) minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.
Skin:	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention.
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/ doctor/.../if you feel unwell
Ingestion:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

5 - Firefighting Measures

Extinguishing Media:	Water spray, dry chemical, alcohol foam, or carbon dioxide.
Unsuitable Extinguishing Media:	None known.
Special Protective Equipment for Firefighters:	Self-contained breathing apparatus and protective clothing when fighting any chemical fire.
Unusual Fire & Explosion Hazards:	In case of fire, containers may explode from internal pressure. Cool with water. May emit toxic fumes of CO _x , PO _x , and NO _x under fire conditions.

6 - Accidental Release Measures

Personal precautions:	Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection.
Environmental precautions:	P273: Avoid release to the environment Limit leakage with earth or sand. Do not discharge into the drains/surface water/groundwater. Dispose of absorbed material in accordance with local, state and federal regulations.
Methods for Containment/Cleaning Up:	Use neutralizing agent. Take up with absorbent material (e.g. vermiculite, general purpose binder). Dispose of absorbed material in accordance with local, state, and federal regulations.

7 - Handling and Storage

Handling:	P261: Avoid breathing mists/vapors of product P262: Do not get in eyes, on skin, or on clothing P264: Wash thoroughly after handling P280: Wear protective gloves/protective clothing/eye protection/face protection
Storage:	P402+404: Store in a dry place. Store in a closed container P403+233: Store in a well ventilated place. Keep container tightly closed.
Special Packaging Requirements:	P406: Store in a corrosive resistant container with a resistant inner liner. Do not store in light metal containers.
Incompatible Materials or Fire/Explosion Protection:	Oxidizers, alkaline materials.

8 - Exposure Controls/Personal Protection

Personal Protective Equipment (PPE):

Hand Protection: Use impervious gloves.
Eye Protection: Wear safety glasses with side shields or full face shield.
Skin Protection: Wear protective clothing.
Respiratory Protection: Recommended if ventilation is limited.

Engineering Measures/Controls:

Ventilation: Ensure adequate ventilation to maintain product at acceptable airborne levels.
Other measures: Eye-wash station.

Exposure Limits/Guidelines:

Material	CAS #	BASIS	TYPE	VALUE
None				

9 - Physical and Chemical Properties

Form and Appearance:	Clear, colorless to yellow liquid	Odor:	Characteristic
pH:	< 2 @ 1%	Odor Threshold:	N/D
Boiling Point:	~ 220°F (104°C)	Melting/Freezing point:	~ 5°F (-15°C)
Vapor Pressure:	< 0.01 mmHg @ 20°C	Vapor Density (Air=1):	N/A
Flash Point:	N/A	Evaporation Rate:	< 0.01
UEL:	N/A	LEL:	N/A
Viscosity:	~ 11 cSt @ 20°C	Solubility in Water:	Fully miscible
Octanol/Water Partition Coefficient:	N/D	Specific Gravity/ Bulk Density:	~1.3
Auto-ignition temperature:	N/D	Decomposition Temperature:	N/D
Volatile content:	N/D	VOC Data:	N/D

10 - Stability and Reactivity

Chemical Stability: Product is stable under ordinary conditions of use and storage.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: Extreme temperatures.
Incompatible Materials: Oxidizers, alkaline materials.
Hazardous Decomposition Products: Extremely high temperatures and fire conditions may produce CO_x, PO_x, and NO_x.

11 - Toxicological Information

Acute Data:

Principle Routes of Exposure: Eye contact, skin contact, ingestion, inhalation (mist).

Acute Toxicity

Route of exposure:	Test type:	Species:	Results:	Comments:
Oral	LD50	Rat	>2910 mg/kg	H303: May be harmful if swallowed
Dermal	LD50	Rat	>6310 mg/kg	-

Irritation and Corrosion

Target organ:	Species:	Results:	Comments:
Eyes	Rabbit	Serious irritation	-
Skin	Rabbit	Slight irritation	-

Sensitization

Target organ:	Species:	Results:	Comments:
Skin	Human	No effects known	-

Specific Target Organ Toxicity – Single Exposure

Target organ:	Species:	Results:	Comments:
None			-

Chronic Data:

Carcinogenicity

IARC	NTP	ACGIH	OSHA
No	No	No	No

Mutagenicity: NDA

Reproductive Effects: NDA

Target Organ Effects: NDA

12 - Ecological Information

Acute Aquatic Toxicity

Species:	Test type:	Exposure time:	Results:	Comments:
Rainbow trout	LC50	96h	>330 mg/l	-
Daphnia magna	EC50	48h	>297 mg/l	-

Environmental Fate

Persistence/Degradability: This product is not readily biodegradable.
> 23% in 28d

COD/BOD5: NDA

Bioaccumulation Potential: This product is not expected to bioaccumulate.

Mobility in Soil: Low.

Other Adverse Effects: NDA

13 - Disposal Considerations

Product: Dispose of absorbed material/content and/or container in accordance with local, state, federal and/or international regulations.

Packaging: NDA

14 - Transport Regulations

US DOT Regulations (Land Transport):

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (aminophosphonic acid)

Hazard Class: 8 **UN Number:** UN3265

Packing Group: III **Label Required:** CORROSIVE

Other Information: -

IATA/ICAO Regulations (Air Transport):

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (aminophosphonic acid)

Hazard Class: 8 **UN Number:** UN3265

Packing Group: III **Label Required:** CORROSIVE

Other Information: -

IMDG/IMO Regulations (Maritime Transport):

Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (aminophosphonic acid)

Hazard Class: 8 **UN Number:** UN3265

Packing Group: III **Label Required:** CORROSIVE

EMS Number: F-A, S-B **Segregation Groups:** Acids

Marine Pollutant (Y/N): N

Other Information: -

15 - Regulatory Information

Domestic Regulations

Components requiring notification

SARA 302 (TPQ)	SARA 304 (RQ)	SARA 313	CERCLA (RQ)	CAA 112(b) HAPS	CAA 112(r)
None	None	None	None	None	None

SARA 311/312 Hazard Categorization: Acute Health Hazard

State Information

California Proposition 65: May contain the following components known to the State of California to cause cancer, birth defects, or other reproductive harm.

None.

**State Right to Know/
Hazardous Substance List
Information:**

The following chemicals are present on one or more Right to Know/Hazardous Substance Lists for the states of MA, MN, NJ, PA and RI.

None.

This is not an exhaustive list. For information on listings in other states, please consult that state's RTK/HSL.

Chemical Inventories

United States (TSCA)	EUROPE (EINECS/ELINCS/NLP)	Australia (AICS)	Philippines (PICCS)	Canada		Korea (ECL)	Japan (ENCS/ISHL)	China (IECSC)	New Zealand (NZIoC)
				DSL	NDSL				
Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

16 - Additional Information

Key to Abbreviations:

NDA - No data available N/D - Not determined N/A - Not applicable N/E - Not established

THE INFORMATION PRESENTED IN THIS MATERIAL SAFETY DATA SHEET (MSDS/SDS) WAS PREPARED BY TECHNICAL PERSONNEL BASED ON DATA THAT THEY BELIEVE IN THEIR GOOD FAITH JUDGMENT IS ACCURATE. HOWEVER, THE INFORMATION PROVIDED HEREIN IS PROVIDED "AS IS," AND ZSCHIMMER & SCHWARZ INC. MAKES AND GIVES NO REPRESENTATIONS OR WARRANTIES WHATSOEVER, AND EXPRESSLY DISCLAIMS ALL WARRANTIES REGARDING SUCH INFORMATION AND THE PRODUCT TO WHICH IT RELATES, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING WITHOUT LIMITATION, WARRANTIES OF ACCURACY, COMPLETENESS, MERCHANTABILITY, NON-INFRINGEMENT, PERFORMANCE, SAFETY, SUITABILITY, STABILITY, AND FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING, COURSE OF PERFORMANCE, OR USAGE OF TRADE. THIS MSDS/SDS IS INTENDED ONLY AS A GUIDE TO THE APPROPRIATE PRECAUTIONARY HANDLING OF THE MATERIAL BY A PROPERLY TRAINED PERSON USING THIS PRODUCT, AND IS NOT INTENDED TO BE COMPREHENSIVE AS TO THE MANNER AND CONDITIONS OF USE, HANDLING, STORAGE, OR DISPOSAL OF THE PRODUCT. INDIVIDUALS RECEIVING THIS MSDS/SDS MUST ALWAYS EXERCISE THEIR OWN INDEPENDENT JUDGMENT IN DETERMINING THE APPROPRIATENESS OF SUCH ISSUES. ACCORDINGLY, ZSCHIMMER & SCHWARZ, INC. ASSUMES NO LIABILITY WHATSOEVER FOR THE USE OF OR RELIANCE UPON THIS INFORMATION. NO SUGGESTIONS FOR USE ARE INTENDED AS, AND NOTHING HEREIN SHALL BE CONSTRUED AS, A RECOMMENDATION TO INFRINGE ANY EXISTING PATENTS OR TO VIOLATE ANY FEDERAL, STATE, LOCAL, OR FOREIGN LAWS. ZSCHIMMER & SCHWARZ INC. REMINDS YOU THAT IT IS YOUR LEGAL DUTY TO MAKE ALL INFORMATION IN THIS MSDS/SDS AVAILABLE TO YOUR EMPLOYEES. EXISTING ACTS AND REGULATIONS MUST BE OBSERVED BY THE RECIPIENT OF OUR PRODUCTS UNDER THEIR OWN RESPONSIBILITY.

Date of Issue: December 26, 2014

Date of last revision: May 25, 2016