



K-BAC 1000

Printed: 09/05/2014
Revision: 09/04/2014
Supersedes Revision: 06/18/2014

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: 210113
Product Name: K-BAC 1000
Trade Name: Biocide
Company Name: Water Science Technologies, LLC
5520 Parkwood Circle
Bessemer, AL 35022
Phone Number: (866)284-9244
Emergency Contact: ChemTel, Inc. (US) (800)255-3924
ChemTel, Inc. (Int'l) (813)248-0585

2. HAZARDS IDENTIFICATION

Aquatic Toxicity (Chronic), Category 3
Aquatic Toxicity (Acute), Category 1
Serious Eye Damage/Eye Irritation, Category 1
Skin Sensitization, Category 1
Skin Corrosion/Irritation, Category 2
Acute Toxicity: Oral, Category 4



GHS Signal Word: **Danger**

GHS Hazard Phrases: H412 - Harmful to aquatic life with long lasting effects.
H400 - Very toxic to aquatic life.
H318 - Causes serious eye damage.
H317 - May cause an allergic skin reaction.
H315 - Causes skin irritation.
H302 - Harmful if swallowed.

GHS Precaution Phrases: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P273 - Avoid release to the environment.
P264 - Wash hands thoroughly after handling.

GHS Response Phrases: P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+352 - IF ON SKIN: Wash with plenty of soap and water.
P333+313 - If skin irritation or rash occurs, seek medical advice/attention.
P362 - Take off contaminated clothing and wash before re-use.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - 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.
P391 - Collect spillage.

GHS Storage and Disposal Phrases: P501 - Dispose of contents/container to accordance with national and international regulations.



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Hazard Rating System:

HEALTH		3
FLAMMABILITY		0
PHYSICAL		0
PPE		D

HMIS:

Potential Health Effects
(Acute and Chronic):

- Inhalation:** Harmful if inhaled. May cause respiratory tract irritation.
- Skin Contact:** May cause skin irritation. Harmful if absorbed through the skin.
- Eye Contact:** May cause eye irritation.
- Ingestion:** Harmful if swallowed. May cause irritation of the digestive tract.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
10222-01-2	2,2-Dibromo-3-nitropropionamide	>98.0 %

4. FIRST AID MEASURES

Emergency and First Aid
Procedures:

- In Case of Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
- In Case of Skin Contact:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid.
- In Case of Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- In Case of Ingestion:** Wash mouth out with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.
- Note to Physician:** Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

- Flash Pt:** NA Method Used: Estimate
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** NA
- Suitable Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.
- Fire Fighting Instructions:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
- Flammable Properties and Hazards:** No data available.



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6. ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures: Use proper personal protective equipment as indicated in Section 8.

Environmental Precautions: Avoid release to the environment.

Steps To Be Taken In Case Material Is Released Or Spilled: Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling: Avoid breathing dust, mist, or vapor. Avoid contact with skin and eyes. Keep container tightly closed.

Precautions To Be Taken in Storing: Store in a cool, dry place. Store away from incompatible material. Store away from sparks, flames.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Components (Chemical Name)	OSHA TWA	ACGIH TWA	Other Limits
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	No data.	No data.	No data.
Respiratory Equipment (Specify Type):	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.			
Eye Protection:	Goggles and face shield.			
Protective Gloves:	Wear appropriate protective gloves to prevent skin exposure.			
Other Protective Clothing:	Wear appropriate protective clothing to prevent skin exposure.			
Engineering Controls (Ventilation etc.):	Use adequate ventilation to keep airborne concentrations low.			
Work/Hygienic/Maintenance Practices:	Wash hands before breaks and immediately after handling the product.			

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States: [] Gas [] Liquid [X] Solid

Appearance and Odor: White.
chlorine-like.

Melting Point: 124.00 C (255.2 F) - 126.00 C (258.8 F)

Boiling Point: NA

Autoignition Pt: NA

Flash Pt: NA Method Used: Estimate

Explosive Limits: LEL: No data. UEL: No data.

Specific Gravity (Water = 1): No data.



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Vapor Pressure (vs. Air or mm Hg): 8.25x10(-4) MM_HG at 25.0 C (77.0 F)
Vapor Density (vs. Air = 1): No data.
Evaporation Rate: No data.
Solubility in Water: No data.
Percent Volatile: No data.

10. STABILITY AND REACTIVITY

Reactivity: acids, Bases, Water.
Stability: Unstable [] Stable [X]
Conditions To Avoid - Instability: Light, Heat, heating to decomposition. Incompatible materials.
Incompatibility - Materials To Avoid: Strong oxidizing agents, acids, Acid chlorides, Carbon dioxide.
Hazardous Decomposition Or Byproducts: Nitrogen oxides, hydrogen bromide. bromine fumes.
Will occur [] Will not occur [X]
Possibility of Hazardous Reactions: Product will not undergo polymerization.
Conditions To Avoid - Hazardous Reactions:

11. TOXICOLOGICAL INFORMATION

Toxicological Information: Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: Mutagenicity: Neurotoxicity: Other Studies:
CAS# 10222-01-2:

Carcinogenicity/Other Information: Acute toxicity, LD50, Intravenous, Mouse, 10.00 MG/KG; U.S. Army Armament Research & Development Command, Chemical Systems Laboratory, NIOSH Exchange Chemicals., Aberdeen Proving Ground., Aberdeen Proving Ground, MD 21010, Vol/p/yr: NX#, 7898

Acute toxicity, LD50, Oral, Species: unspecified., 118.0 MG/KG; Pharmacologist., American Soc. for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Rockville, MD 20014, Vol/p/yr: 15,226, 1973

Standard Draize Test, Skin, Species: Rabbit, 500.0 MG; Pharmacologist., American Soc. for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Rockville, MD 20014, Vol/p/yr: 15,226, 1973

Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG.
Results:
Skin and Appendages: Other: Hair.
- Pharmacologist., American Soc. for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Rockville, MD 20014, Vol/p/yr: 15,226, 1973
CAS# 10222-01-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.



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CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	n.a.	n.a.	n.a.	n.a.

12. ECOLOGICAL INFORMATION

No data available.

Results of PBT and vPvB assessment:

CAS# 10222-01-2:
LC50, Bluegill (*Lepomis macrochirus*), 2.300 PPM, 96 H, Mortality; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000

LC50, Rainbow Trout (*Oncorhynchus mykiss*), 2.300 PPM, 96 H, Mortality; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000

Effective concentration to 50% of test organisms., Water Flea (*Daphnia magna*), 0.900 PPM, 48 H, Intoxication,; Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000

13. DISPOSAL CONSIDERATIONS

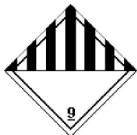
Waste Disposal Method:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name:	Environmentally hazardous substances, solid, n.o.s.2,2-dibromo-3-nitrilopropionamide		
DOT Hazard Class:	9	CLASS 9	
UN/NA Number:	UN3077	Packing Group:	III



LAND TRANSPORT (Canadian TDG):

TDG Shipping Name:	Environmentally hazardous substances, solid, n.o.s.2,2-dibromo-3-nitrilopropionamide		
UN Number:	3077	Packing Group:	III
Hazard Class:	9 - CLASS 9	TDG Classification:	

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name:	Environmentally hazardous substances, solid, n.o.s.2,2-dibromo-3-nitrilopropionamide		
UN Number:	3077	Packing Group:	III
Hazard Class:	9 - CLASS 9	Marine Pollutant:	Yes



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AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Environmentally hazardous substances, solid,
n.o.s.2,2-dibromo-3-nitrilopropionamide

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	No	No	No

CAS #	Hazardous Components (Chemical Name)	Canadian NPRI	Canadian IDL	Canadian DSL
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	

Canadian WHMIS Classification:



CLASS D, DIVISION 1: Materials Causing Immediate and Serious Toxic Effects

Regulatory Information: Primary EPA Registration # : 88714-6
This product is subject to registration under FIFRA.
All ingredients are reported in the EPA TSCA Inventory.

16. OTHER INFORMATION

Revision Date: 09/04/2014
Additional Information About This Product: No data available.

Company Policy or Disclaimer: The information accumulated herein is believed to be accurate based on the information provided, although no guarantee or warranty, either expressed or implied is made as to the accuracy or completeness of this information, whether originating with this company or not. Recipients are advised to confirm in advance of need that the information is correct, applicable and suitable to their circumstances. The conditions or methods of handling, storage, use and disposal of the product and container are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage or use of this information or product. If the product is used as a component in another product, this information may not be applicable.