



# K-BAC 1020

Printed: 03/13/2015  
Revision: 02/18/2015  
Supersedes Revision: 09/04/2014

## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Code:** 210514  
**Product Name:** K-BAC 1020  
**Category:** Biocide  
**Company Name:** Water Science Technologies, LLC  
5520 Parkwood Circle  
Bessemer, AL 35022  
**Phone Number:** (866)284-9244  
**Emergency Contact:** CANUTEC (Canada) (613)996-6666  
**Intended Use:** A microbiocidal bactericide, fungicide, algicide, and slimicide.

### 2. HAZARDS IDENTIFICATION

**Acute Toxicity: Oral, Category 4**  
**Serious Eye Damage/Eye Irritation, Category 1**  
**Skin Sensitization, Category 1A**



**GHS Signal Word:** **Danger**

**GHS Hazard Phrases:** H302 - Harmful if swallowed.  
H318 - Causes serious eye damage.  
H317 - May cause an allergic skin reaction.

**GHS Precaution Phrases:** P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P362+364 - Take off contaminated clothing and wash it before reuse.

**GHS Response Phrases:** P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P310 - Immediately call a POISON CENTER or doctor/physician.  
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.  
P302+352 - IF ON SKIN: Wash with plenty of soap and water.  
P333+313 - If skin irritation or rash occurs, seek medical advice/attention.  
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**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	2
FLAMMABILITY	1
PHYSICAL	0
PPE	D

HMIS:

Potential Health Effects  
(Acute and Chronic):

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Ingredient(s)	Concentration
10222-01-2	2,2-Dibromo-3-nitropropionamide	19.0 -21.0 %
25322-68-3	Polyethylene glycol	50.0 %
7732-18-5	Water	30.0 %

### 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:** No specific antidote. Treat symptomatically and supportively. Probable mucosal damage may contraindicate the use of gastric lavage.

### 5. FIRE FIGHTING MEASURES

- Flash Pt:** NA Method Used: Estimate
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** NA
- Suitable Extinguishing Media:** Dry chemical, CO2 or water spray.
- 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. Use water spray to cool unopened containers.
- 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:** Decontaminate spill area with 10% sodium bicarbonate solution. Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable 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-nitropropionamide	No data.	No data.	No data.
25322-68-3	Polyethylene glycol	No data.	No data.	No data.
7732-18-5	Water	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:** Splash goggles and/or face shield.

**Protective Gloves:** Impervious gloves.

**Other Protective Clothing:** Lab coat and/or apron.

**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 [X] Liquid [ ] Solid

**Appearance and Odor:** Clear, yellow to amber liquid. chlorine-like.

**Freezing Point:** < -30.00 F (-34.4 C)

**Boiling Point:** > 70.00 C (158.0 F)

**Decomposition Temperature:** > 70.00 C (158.0 F)

**Autoignition Pt:** NA

**Flash Pt:** NA Method Used: Estimate

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

**Specific Gravity (Water = 1):** 1.25+/-0.05



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**Vapor Pressure (vs. Air or mm Hg):** 4x10(-5) MM\_HG at 25.0 C (77.0 F)  
**Vapor Density (vs. Air = 1):** < 1  
**Evaporation Rate:** < 1  
**Solubility in Water:** soluble  
**pH:** 2.83 +/- 0.5 - (10% soln)  
**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, Reducing agents, Bases.  
**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: No data available.  
Mutagenicity: No data available.  
Neurotoxicity: No data available.  
Other Studies: No data available.  
CAS# 10222-01-2:  
Acute toxicity, LD50, Intravenous, Mouse, 10.00 MG/KG.  
Result:  
Gastrointestinal: Changes in structure or function of salivary glands.  
Kidney, Ureter, Bladder: Changes in tubules (including acute renal failure, acute tubular necrosis).  
Nutritional and Gross Metabolic: Weight loss or decreased weight gain.  
- 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.  
Result:  
Nutritional and Gross Metabolic: Changes in: Ca.  
Nutritional and Gross Metabolic: Changes in phosphorus.  
Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: Phosphatases.  
- Pharmacologist., American Soc. for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Rockville, MD 20014, Vol/p/yr: 15,226, 1973



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Standard Draize Test, Skin, Species: Rabbit, 500.0 MG.

Result:

Behavioral: Somnolence (general depressed activity).

Gastrointestinal: Other changes.

- 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.

Result:

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

### Carcinogenicity/Other Information:

CAS# 10222-01-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS #	Ingredient(s)	NTP	IARC	ACGIH	OSHA
10222-01-2	2,2-Dibromo-3-nitropropionamide	n.a.	n.a.	n.a.	n.a.
25322-68-3	Polyethylene glycol	n.a.	n.a.	n.a.	n.a.
7732-18-5	Water	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.

Result:

Age Effects.

- Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000

LC50, Rainbow Trout (*Oncorhynchus mykiss*), 2.300 PPM, 96 H, Mortality.

Result:

Age Effects.

- 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,.

Result:

Age Effects.

- Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000



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### 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. Observe all federal, state, and local environmental regulations. Avoid release to the environment. RCRA P-Series: None listed. RCRA U-Series: None listed.

### 14. TRANSPORT INFORMATION

#### LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Not Regulated.  
**DOT Hazard Class:**  
**UN/NA Number:**

#### LAND TRANSPORT (Canadian TDG):

**TDG Shipping Name:** Not Regulated.  
**UN Number:**  
**Hazard Class:**

**TDG Classification:**

#### MARINE TRANSPORT (IMDG/IMO):

**IMDG/IMO Shipping Name:** Not Regulated.  
**UN Number:** |N|  
**Hazard Class:**

**Packing Group:**

**IMDG MFAG Number:** |

**IMDG EMS Page:** |

#### AIR TRANSPORT (ICAO/IATA):

**ICAO/IATA Shipping Name:** Not Regulated.

### 15. REGULATORY INFORMATION

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

CAS #	Ingredient(s)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
10222-01-2	2,2-Dibromo-3-nitropropionamide	No	No	No
25322-68-3	Polyethylene glycol	No	No	No
7732-18-5	Water	No	No	No

**This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:**  Yes  No Acute (immediate) Health Hazard  
 Yes  No Chronic (delayed) Health Hazard  
 Yes  No Fire Hazard  
 Yes  No Sudden Release of Pressure Hazard  
 Yes  No Reactive Hazard

CAS #	Ingredient(s)	Canadian NPRI	Canadian IDL	Canadian DSL
10222-01-2	2,2-Dibromo-3-nitropropionamide	No	No	No
25322-68-3	Polyethylene glycol	No	No	Yes
7732-18-5	Water	No	No	Yes

**CAS #** **Ingredient(s)** **Other US EPA or State Lists**  
10222-01-2 2,2-Dibromo-3-nitropropionamide CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes -



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25322-68-3 Polyethylene glycol

7732-18-5 Water

Inventory; CA PROP.65: No

CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes -  
Inventory; CA PROP.65: No

CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes -  
Inventory; CA PROP.65: No

CAS #	Ingredient(s)
10222-01-2	2,2-Dibromo-3-nitropropionamide
25322-68-3	Polyethylene glycol
7732-18-5	Water

### International Regulatory Lists

### Canadian WHMIS Classification:



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

**Regulatory Information:** Primary EPA Registration # : 88714-2  
This product is subject to registration under FIFRA.  
All ingredients are reported in the EPA TSCA Inventory.

## 16. OTHER INFORMATION

**Revision Date:** 02/18/2015  
**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.