K-BAC 1020

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: K-BAC 1020

Category: Biocide

Company Name:

State Industrial Products
5915 Landerbrook Drive
Mayfield Heights, OH 44124
To Order Call: 1-866-747-2229

6935 Davand Drive
Mississauga, Ontario L5T 1L5
To Order Call: 1-800-668-6513

Emergency Contact: CHEMTREC:

24 hours for Chemical Emergency

Phone Number: (800)424-9300

Intended Use: A microbiocidal bactericide, fungicide, algicide, and slimicide.

2. HAZARDS IDENTIFICATION

Acute Toxicity: Oral, Category 4
Acute Toxicity: Inhalation, Category 4
Serious Eye Damage/Eye Irritation, Category 1
Skin Sensitization, Category 1A
Specific Target Organ Toxicity (single exposure), Category 1
Corrosive To Metals, Category 1
Aquatic Toxicity (Chronic), Category 2



GHS Signal Word: **Danger**

GHS Hazard Phrases:
H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H332 - Harmful if inhaled.
H370 - Causes damage to organs
H411 - Toxic to aquatic life with long lasting effects.

GHS Precautionary Phrases:
P234 - Keep only in original container.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash face, hands, and any exposed skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases:
P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+352 - IF ON SKIN: Wash with plenty of soap and water.
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.
P330 - Rinse mouth.
P333+313 - If skin irritation or rash occurs, seek medical advice/attention.
P362+364 - Take off contaminated clothing and wash it before reuse.
P390 - Absorb spillage to prevent material damage.

GHS Storage and Disposal Phrases: P405 - Store locked up.
P501 - Dispose of contents/container to an approved waste disposal plant.

Hazard Rating System:

HMIS:



3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Ingredient(s)	Concentration
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	19.0 -21.0 %
NA	Other ingredients	~80.0 %

* Other ingredients refers to a glycol/water blend.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:

In Case of Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. If necessary, give supplemental oxygen (if available). If breathing has stopped, call emergency services and assist with CPR immediately.

In Case of Skin Contact: Wash exposed area with soap and water thoroughly.May cause allergic skin reaction.Remove contaminated clothing and wash before reuse. Seek medical advice/attention immediately.

In Case of Eye Contact: Immediately flush eyes with running water for at least 15 minutes. Remove contact lenses if present and easy to do so, after the first 5 minutes. Seek medical advice/attention immediately.

In Case of Ingestion: Rinse mouth with water. Do NOT induce vomiting. Never give anything to an unconscious person. Seek medical advice/attention immediately.

Signs and Symptoms Of Exposure: May cause allergic skin reaction. Burning sensation, itching, rashes, hives, coughing and/or wheezing, difficulty in breathing.

Note to Physician: May cause sensitization in susceptible persons. Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Flash Pt: > 93.3 C (> 200.00 F) Method Used: ASTM D Closed Cup

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

Autoignition Pt: NA

Suitable Extinguishing Media: Use extinguishing media appropriate to surrounding fire conditions.

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.

6. ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Avoid access to streams, lakes or ponds.

Steps To Be Taken In Case Material Is Released Or Spilled: Contain spilled material if possible. Neutralize with sodium bisulphite or sodium metabisulfite, a minumum of 17.2 grams sodium bisulfite or 15.7 grams sodium metabisulfite for every 100 grams of product should be used to fully neutralize the product. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling: Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Avoid breathing product vapors or mists. Use with adequate ventilation. Keep containers closed when not in use.

Precautions To Be Taken in Storing: Store in a dry, cool, and well ventilated area away from heat sources and incompatible materials. Keep containers securely sealed. Protect containers from physical damage and check regularly for leaks.

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.
NA	Other ingredients	No data.	No data.	No data.

Respiratory Equipment (Specify Type): A risk assessment should be made of the process where this material is used. If concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulation (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

Eye Protection: When fullface respirator or PAPR are not in use, Splash goggles and/or face shield are recommended.

Protective Gloves: Wear appropriate gloves to prevent skin exposure. The suitability for a specific workplace should be discussed with the producers of the protective gloves to ensure proper type is chosen for the process.

	Recommended: Neoprene gloves (0.75 mm) Butyl rubber gloves (0.7 mm) Nitrile rubber (0.38 mm)
Other Protective Clothing:	Wear appropriate protective clothing to prevent skin exposure. Choose protection according to the amount and concentration of the dangerous substance at the workplace.
Engineering Controls (Ventilation etc.):	Use local and/or general exhaust ventilation to maintain airborne concentrations below irritating levels or airborne exposure limits, whichever is lower. Local exhaust is generally preferred because it can control the emission of the contaminant at its source, preventing dispersion of it into the general work area.
Work/Hygienic/Maintenance Practices:	An eye wash station should be accessible in the immediate area of use. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States:	[ ] Gas [X] Liquid [ ] Solid
Appearance and Odor:	colorless to amber liquid. chlorine-like.
Freeze Point/Pour Point:	< -34.4 C (< -30.00 F)
Boiling Point:	> 98.9 C (> 210.00 F)
Decomposition Temperature:	> 70.00 C (158.0 F)
Autoignition Pt:	NA
Flash Pt:	> 93.3 C (> 200.00 F) Method Used: ASTM D Closed Cup
Explosive Limits:	LEL: No data. UEL: No data.
Specific Gravity (Water = 1):	1.22+/-0.05
Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	No data.
Evaporation Rate:	No data.
Solubility in Water:	soluble
pH:	2.0 - 5.0
Percent Volatile:	No data.

10. STABILITY AND REACTIVITY

Reactivity: No reactive hazards known/expected.

Stability: Unstable [ ] Stable [X]

Conditions To Avoid - Instability: Light, Heat, heating to decomposition. Incompatible materials.

Incompatibility - Materials To Avoid: Metals. Strong bases, Strong oxidizing agents, Reducing agents.

Hazardous Decomposition or Byproducts: Nitrogen oxides, hydrogen bromide. bromine fumes.

Possibility of Hazardous Reactions: Will occur [ ] Will not occur [X]

Conditions To Avoid - Hazardous Reactions: Product will not undergo polymerization.

11. TOXICOLOGICAL INFORMATION

Toxicological Information:

Likely routes of exposure:
Inhalation - Harmful by inhalation.
Eye contact - Causes serious eye damage. May cause burns.
Skin contact - May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion - Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Acute Toxicity:
Oral (LD50) = 1387 mg/kg
Dermal (LD50) = >4000 mg/kg
Inhalation (LD50) = 1.05 mg/L

Irritation or Corrosion: Skin corrosion/irritation - May cause irritation.
Serious eye damage/irritation - Causes serious eye damage.

Symptoms related to Toxicological Characteristics: Redness. Burning. May cause blindness. Itching. Rashes. Hives. Coughing and/or wheezing.

Sensitization: May cause sensitization by skin contact.

Chronic Toxicological Effects: Causes damage to organs through prolonged or repeated exposure (respiratory tract)

Carcinogenicity/Other Information:

Germ cell mutagenicity - Not mutagenic in several in vitro assays. (CAS# 10222-01-2)
Carcinogenicity - Did not cause cancer in laboratory animals. (CAS# 10222-01-2)
Teratogenicity - Not teratogenic. The NOAEL (for fetal toxicity in rabbits) = 10 mg/kg/day (CAS# 10222-01-2)
Reproductive toxicity - The product did not demonstrate reproductive toxicity. In a 2-generation study in rats, the NOEL for reproduction parameters was >= 30 mg/kg/day. (CAS# 10222-01-2)
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-nitrilopropionamide	n.a.	n.a.	n.a.	n.a.
NA	Other ingredients	n.a.	n.a.	n.a.	n.a.

12. ECOLOGICAL INFORMATION

General Ecological Information:

Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Ecotoxicity data:
The data on DBNPA (CAS# 10222-01-2) as a individual component is:
3-4 ppm for the Pimephales Promelas/96 hour/LC50
0.86 ppm for the Daphnia Magna/48 hour/EC50
0.72 ppm for the Mysidopsis Bahia/48 hour/LC50
0.72 ppm for Scenedesmus Subspicatus/72 hour/EbC50
0.06 ppm for Daphnia Magna/21 day/NOEC

The calculated values for the final product of K-BAC 1020 are:
17.0 ppm (mg/L) for the Pimephales Promelas/96 hour/LC50
4.3 ppm (mg/L) for the Daphnia Magna/48 hour/EC50
3.6 ppm (mg/L) for the Mysidopsis Bahia/48 hour/LC50
3.6 ppm (mg/L) for Scenedesmus Subspicatus/72 hour/EbC50

Results of PBT and vPvB assessment: No data available.

Persistence and Degradability: Considered to be rapidly degradable. Hydrolysis rate inceases with an increase in either pH or temperature (half-lives at pH 7, 65 hours at 25C).

Bioaccumulative Potential: Not expected to bioaccumulate.

Mobility in Soil: Expected to be mobile in soil.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

RCRA: It is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24).

Disposal: Biocide or Pesticide wastes are acutely hazardous. Improper disposal or excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Biocide/Pesticide or Environmental Control Agency, or the Hazardous Waste representative at your nearest EPA Regulation Office for guidance

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.(2,2-Dibromo-3-nitrilopropion amide)
DOT Hazard Class: 8 CORROSIVE
UN/NA Number: UN3265 **Packing Group:** III





LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Corrosive liquid, acidic, organic, n.o.s.(2,2-Dibromo-3-nitrilopropion amide)
UN Number: 3265 **Packing Group:** III
Hazard Class: 8 - CORROSIVE **TDG Classification:**

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Corrosive liquid, acidic, organic, n.o.s.(2,2-Dibromo-3-nitrilopropion amide)
UN Number: 3265 **Packing Group:** III
Hazard Class: 8 - CORROSIVE
IMDG MFAG Number:
IMDG EMS Page: **Marine Pollutant:** Yes

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Corrosive liquid, acidic, organic, n.o.s.(2,2-Dibromo-3-nitrilopropion amide)
UN Number: 3265 **Packing Group:** III
Hazard Class: 8 - CORROSIVE

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-nitrilopropionamide	No	No	No
NA	Other ingredients	No	No	No

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

[ ] Yes [X] No Explosive
[ ] Yes [X] No Flammable (gases, aerosols, liquid, or solid)
[ ] Yes [X] No Oxidizer (liquid, solid or gas)
[ ] Yes [X] No Self-reactive
[ ] Yes [X] No Pyrophoric (liquid or solid)
[ ] Yes [X] No Pyrophoric gas
[ ] Yes [X] No Self-heating
[ ] Yes [X] No Organic peroxide
[X] Yes [ ] No Corrosive to metal
[ ] Yes [X] No Gas under pressure (compressed gas)
[ ] Yes [X] No In contact with water emits flammable gas
[ ] Yes [X] No Combustible Dust
[ ] Yes [X] No (Physical) Hazard Not Otherwise Classified (HNOC)
[X] Yes [ ] No Acute toxicity (any route of exposure)
[ ] Yes [X] No Skin Corrosion or Irritation
[X] Yes [ ] No Serious eye damage or eye irritation
[X] Yes [ ] No Respiratory or Skin Sensitization
[ ] Yes [X] No Germ cell mutagenicity

[ ] Yes [X] No Carcinogenicity
[ ] Yes [X] No Reproductive toxicity
[X] Yes [ ] No Specific target organ toxicity (single or repeated exposure)
[ ] Yes [X] No Aspiration Hazard
[ ] Yes [X] No Simple Asphyxiant
[X] Yes [ ] No (Health) Hazard Not Otherwise Classified (HNOC)

CAS #	Ingredient(s)	Canadian NPRI	Canadian IDL	Canadian DSL
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	No	No	No
NA	Other ingredients	No	No	Yes

CAS #	Ingredient(s)	Other US EPA or State Lists
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; FIFRA: Yes - Active - 101801: Am; FDA/DEA CSA: No; CA PROP.65: No
NA	Other ingredients	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; FIFRA: No; FDA/DEA CSA: No; CA PROP.65: No

Regulatory Information:

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

Canada Regulatory information:
The active ingredient (CAS# 10222-01-2) in K-BAC 1020 is regulated under the Pest Control Products Act by the PMRA and is therefore exempt from registration as a substance under the DSL.
This product complies to the Pest Control Products Act.and is considered exempt from from WHMIS classification.
Registration No.: 31032 Pest Control Products Act.
Canadian regulations: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

16. OTHER INFORMATION

Revision Date: 10/11/2021

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.