

**SAFETY DATA SHEET****MAKS 4071**

According to Regulation (EC) No. 1907/2008

Issue Date: 26.02.2012

Revision Date: 18.12.2023

Version: 03

**1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING**

<b>PRODUCT NAME</b>	<b>MAKS 4071</b>
<b>APPLICATION</b>	<b>MICROORGANISM CONTROL AGENT</b>
<b>SUPPLIER</b>	<b>BİMAKS KİMYA VE GIDA DIŞ TİCARET LTD. ŞTİ.</b> Fatih Sultan Mehmet Mahallesi Şiir Sokak. No: 10 İç Kapı No: 1 Ümraniye/ İSTANBUL Tel: 0 850 522 71 04 Fax: 0216 321 32 13 E-mail: <a href="mailto:info@bimaskimya.com">info@bimaskimya.com</a> Web: <a href="http://www.bimaskimya.com.tr">www.bimaskimya.com.tr</a>
<b>CONTACT PERSON</b>	SILA ARSLAN, ROY KARASU
<b>EMERGENCY TELEPHONE</b>	BİMAKS KİMYA: 0 850 522 71 04

**2 HAZARD IDENTIFICATION****CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:****Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Oral, Category 4, H302

Skin Irritation, Category 2, H315

Skin Sensitization. - Category 1, H317

Eye damage, Category 1, H318

Acute Toxicity, Inhalation, Category 3, H331

Aquatic chronic, Category 3, H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

**LABEL ELEMENTS:****Labelling according Regulation (EC) No 1272/2008****PICTOGRAM:****SIGNAL WORD:** Danger**Hazard statement(s):**

H302-Harmful if swallowed.

H315-Causes skin irritation.

H317-May cause an allergic skin reaction.

H318-Causes serious eye damage.

H331-Toxic if inhaled.

H412-Harmful to aquatic life with long lasting effects.

**Precautionary statement(s):**

P273 Avoid release to the environment.

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

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**SAFETY DATA SHEET****MAKS 4071**

According to Regulation (EC) No. 1907/2008

Issue Date: 26.02.2012

Revision Date: 18.12.2023

Version: 03

P310 Immediately call a POISON CENTER or doctor/physician.

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

P501 Dispose of contents/container to local regulations

**Supplemental Hazard Statements:** None**3 COMPOSITION/INFORMATION ON INGREDIENTS**

CAS NO.	CHEMICAL NAME	WT %	CLASSIFICATION
10222-01-2	2,2-Dibromo-3-nitrilopropionamide	15-25	Acute tox.3, H301; Acute tox.2, H330; Skin Irrit.2, H315; Skin Sens.1B, H317; Eye dam.1, H318; Aquatic acute 1, H400(M=1); Aquatic chronic 2, H411

**4 FIRST AID MEASURES****IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.**IF SWALLOWED:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferable mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.**NOTE TO PHYSICIAN:** Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage. Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.**5 FIRE FIGHTING MEASURES****FLASH POINT:** > 360 °F / > 182 °C (COC)**EXTINGUISHING MEDIA:** Use extinguishing media appropriate for surrounding fire.**FIRE AND EXPLOSION HAZARD:** May evolve oxides of carbon (COx) under fire conditions. May evolve bromine, cyanogens bromide and dibromoaceto nitrile under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING:** In case of fire, wear a full face positive-pressure self-contained breathing apparatus and protective suit.**6 ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS:** Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Ventilate spill area if possible. Ensure clean-up is conducted by trained personnel only. Do not touch spilled material. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Notify appropriate government, occupational health and safety and environmental authorities.**METHODS FOR CLEANING UP:****SMALL SPILLS:** Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. **LARGE SPILLS:** Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Wash site of spillage thoroughly with water. Contact an approved waste hauler

**SAFETY DATA SHEET****MAKS 4071**

According to Regulation (EC) No. 1907/2008

Issue Date: 26.02.2012

Revision Date: 18.12.2023

Version: 03

for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

**ENVIRONMENTAL PRECAUTIONS:** This product is toxic to fish. Apply this product only as specified on this label. Do not contaminate water by cleaning of equipment, or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

**7 HANDLING AND STORAGE**

**HANDLING:** Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Avoid generating aerosols and mists. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks etc.) readily available.

**STORAGE CONDITIONS:** Store the containers tightly closed. Store separately from oxidizers. Store in suitable labeled containers.

**SUITABLE CONSTRUCTION MATERIAL:** PVC, Polypropylene, Polyethylene, Hastelloy C-276, HDPE (high density polyethylene), Teflon, Viton

**UNSUITABLE CONSTRUCTION MATERIAL:** Copper, Brass, Aluminum, Mild steel, Buna-N, Ethylene propylene, Neoprene, Polyurethane, Hypalon, Stainless Steel 304, Stainless Steel 316L, Carbon steel

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**OCCUPATIONAL EXPOSURE LIMITS:** Exposure guidelines have not been established for this product. Available exposure limits for the substance(s) are shown below.

Country/Source Substance(s)	Category:	ppm	mg/m <sup>3</sup>
Dibromoacetonitrile	Manufacturer's Recommendation/TWA (Skin)		0.1
	Manufacturer's Recommendation/CEILING (Skin)		
2,2-Dibromo-3-nitropropionamide	Manufacturer's Recommendation/TWA		2
	Manufacturer's Recommendation/CEILING		
Polyethylene Glycol	AIHA/WEEL/TWA 10		10

**ENGINEERING MEASURES:** General ventilation is recommended. Use local exhaust ventilation if necessary to control airborne mist and vapor.

**RESPIRATORY PROTECTION:** Where concentrations in air may exceed the limits given in this section, the use of a half face filter mask or air supplied breathing apparatus is recommended. A suitable filter material depends on the amount and type of chemicals being handled. Consider the use of filter type: Organic vapor cartridge with a Particulate pre-filter. In event of emergency or planned entry into unknown concentrations a positive pressure, full-face piece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

**HAND PROTECTION:** PVC Neoprene Viton or Butyl rubber Gloves should be replaced immediately if signs of degradation are observed. Breakthrough time not determined as preparation, consult PPE manufacturers.

**SKIN PROTECTION:** Wear chemical resistant apron, chemical splash goggles, impervious gloves and boots. A full slicker suit is recommended if gross exposure is possible.

**EYE PROTECTION:** Wear a face shield with chemical splash goggles.

**SAFETY DATA SHEET****MAKS 4071**

According to Regulation (EC) No. 1907/2008

Issue Date: 26.02.2012

Revision Date: 18.12.2023

Version: 03

**HYGIENE RECOMMENDATIONS:** Use good work and personal hygiene practices to avoid exposure. Keep an eye wash fountain available. Keep a safety shower available. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse. Always wash thoroughly after handling chemicals. When handling this product never eat, drink or smoke.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

<b>PHYSICAL STATE</b>	Liquid
<b>APPEARANCE</b>	Colorless or light yellow
<b>ODOR</b>	Mild, Disinfectant
<b>SPECIFIC GRAVITY (25°C)</b>	0.9-1.25 g/cm <sup>3</sup>
<b>SOLUBILITY IN WATER</b>	Complete
<b>pH (100 %) (25°C)</b>	1.0-7.0

**NOTE:** These physical properties are typical values for this product and are subject to change.

**10 STABILITY AND REACTIVITY**

**STABILITY:** Stable under normal conditions.

**HAZARDOUS POLYMERIZATION:** Hazardous polymerization will not occur.

**CONDITIONS TO AVOID:** Heat.

**MATERIALS TO AVOID:** Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, per chlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors. Contact with reducing agents (e.g. hydrazine, sulfites, sulfide, aluminum or magnesium dust) may generate heat, fires, explosions and toxic vapors. Oxidizing agents aluminum.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Decomposes cyanogenbromide and dibromoacetonitrile, bromine, oxides of carbon.

**11 TOXICOLOGICAL INFORMATION**

The following results are for the product along with results on the active substances.

<b>ACUTE ORAL TOXICITY :</b>	<b>Species:</b> Rat	<b>LD50:</b> 178 - 235 mg/kg	<b>Test Descriptor:</b> Active Substance
	<b>Species:</b> Guinea pig	<b>LD50:</b> 118 mg/kg	<b>Test Descriptor:</b> Active Substance
	<b>Species:</b> Rabbit	<b>LD50:</b> 118 mg/kg	<b>Test Descriptor:</b> Active Substance
	<b>Species:</b> Rat	<b>LD50:</b> 510 mg/kg	<b>Test Descriptor:</b> Product
<b>ACUTE DERMAL TOXICITY :</b>	<b>Species:</b> Rabbit	<b>LD50:</b> > 2,000 mg/kg	<b>Test Descriptor:</b> Product
<b>ACUTE INHALATION TOXICITY:</b>	<b>Species:</b> Rat	<b>LD50:</b> 1.4 mg/l (4 hrs)	<b>Test Descriptor:</b> Product
	<b>Species:</b> Rat	<b>LD50:</b> 1.25 mg/l (4 hrs)	<b>Test Descriptor:</b> Product

**SENSITIZATION:** Repeated or prolonged contact may cause skin sensitization.

**CARCINOGENICITY:** None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

**HUMAN HAZARD CHARACTERIZATION:** Based on our hazard characterization, the potential human hazard is: High

## SAFETY DATA SHEET

### MAKS 4071

According to Regulation (EC) No. 1907/2008

Issue Date: 26.02.2012

Revision Date: 18.12.2023

Version: 03

#### 12 ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL EFFECTS:** The following results are for the product along with results on the hazardous components. The following results are for the active components.

##### ACUTE FISH RESULTS:

Species	Exposure	LC50	Test Descriptor
Rainbow Trout	96 hrs	3.6 mg/l	Product
Bluegill Sunfish	96 hrs	8.9 mg/l	Product
Gold Orfe	96 hrs	4.7 mg/l	Product
Sheep shead Minnow	96 hrs	7.5 mg/l	Product
Rainbow Trout	96 hrs	1 mg/l	Active Substance
Fathead Minnow	96 hrs	1.36 mg/l	Active Substance

Bluegill Sunfish 96 hrs 1.3 mg/l Active Substance

Sheep shead Minnow 96 hrs 1.4 mg/l Active Substance

##### ACUTE INVERTEBRATE RESULTS:

Species	Exposure	LC50	EC50	Test Descriptor
Daphnia magna	48 hrs	4.3 mg/l	3.8 mg/l	Product
Ceriodaphniadubia	48 hrs	6.67 mg/l		Product
Mysid Shrimp (Mysidopsisbahia)	96 hrs	4.2 mg/ l	3.2 mg/l	Product
Acartiatonsa	48 hrs	1.78 mg/l		Product
Daphnia manga	48 hrs	1.24 mg/l		Active Substance
Grass Shrimp	96 hrs	11.5 mg/l		Active Substance

##### AQUATIC PLANT RESULTS:

Species	Exposure	EC50/LC50	Test Descriptor
Marine Algae (Skeletonema costatum)	72 hrs	0.53 mg/l	Product

##### AQUATIC MICROORGANISM RESULTS:

Species	Exposure	EC50/LC50	Test Descriptor
Pseudomonas putida		> 2.0 mg/l	Product

**ADDITIONAL ECOLOGICAL DATA:** Product contains organic halogens, may contribute to AOX.

##### PERSISTENCY AND DEGRADATION:

Total Organic Carbon (TOC): 280,000 mg/l

Chemical Oxygen Demand (COD): 1,110,000 mg/l

Biological Oxygen Demand (BOD):

Incubation Period	Value	Test Descriptor
5 d	1,100 mg/l	Product

The organic portion of this preparation is expected to be readily biodegradable.

**MOBILITY:** The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air	Water	Soil/Sediment
<5%	10 - 30%	70 - 90%

**SAFETY DATA SHEET****MAKS 4071**

According to Regulation (EC) No. 1907/2008

Issue Date: 26.02.2012

Revision Date: 18.12.2023

Version: 03

The portion in water is expected to be soluble or dispersible.

**BIOACCUMULATION POTENTIAL:** This substance has a low potential to bio-concentrate.**ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION:** Based on our hazard characterization, the potential environmental hazard is: Moderate

If released into the environment, see CERCLA/SUPERFUND in Section 15.

**13 DISPOSAL CONSIDERATIONS**

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

**Hazardous Waste:** D002

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Do not reuse empty container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or other procedures approved by state and local authorities.

**14 TRANSPORT INFORMATION****UN NUMBER:**

ADR/RID: 3265

IMDG: 3265

IATA: 3265

**UN PROPER SHIPPING NAME**

ADR/RID: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-Dibromo-3-nitrilopropionamide)

IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-Dibromo-3-nitrilopropionamide)

IATA: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-Dibromo-3-nitrilopropionamide)

**TRANSPORT HAZARD CLASS (ES)**

ADR/RID: 8

IMDG: 8

IATA: 8



LABEL: 8

**PACKAGING GROUP**

ADR/RID: III

IMDG: III

IATA: III

**ENVIRONMENTAL HAZARDS**

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: yes

**SPECIAL PRECAUTIONS FOR USER:** No data available.**15 REGULATORY INFORMATION****THIS SAFETY DATASHEET COMPLIES WITH THE REQUIREMENTS OF REGULATION (EC) NO. 1907/2006.****SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:** No data available.**CHEMICAL SAFETY ASSESSMENT:** For this product a chemical safety assessment was not carried out.

**SAFETY DATA SHEET****MAKS 4071****According to Regulation (EC) No. 1907/2008****Issue Date: 26.02.2012****Revision Date: 18.12.2023****Version: 03****16 OTHER INFORMATION**

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

**EMERGENCY TELEPHONE NUMBER(S): 0 850 522 71 04****SDS Authorized Person: SILA ARSLAN****Certificate Validity Date: 09.10.2028****Certificate No: TÜV/11.214.09**