

# Material Safety Data Sheet

## BG Universal Super Cool®



### 1. Product and company identification

<b>Material uses</b>	: Other non-specified industry: Conditioners.
<b>Manufacturer</b>	: BG Products Inc. 701 S. Wichita Street Wichita, KS, 67213, USA www.bgprod.com
<b>MSDS #</b>	: 546
<b>Validation date</b>	: 6/8/2012.
<b>Responsible name</b>	: Kolin Anglin, Environmental Coordinator 316-265-2686 msds@bgprod.com
<b>In case of emergency</b>	: (800) 424-9300 (CHEMTREC)

### 2. Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: oil
<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Emergency overview</b>	: WARNING!  HARMFUL IF SWALLOWED. CAUSES EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. SUSPECT CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER.  Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Use personal protective equipment as required. Wash thoroughly after handling.
<b><u>Potential acute health effects</u></b>	
<b>Inhalation</b>	: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Ingestion</b>	: Toxic if swallowed.
<b>Skin</b>	: Severely irritating to the skin.
<b>Eyes</b>	: Severely irritating to eyes. Risk of serious damage to eyes.
<b><u>Potential chronic health effects</u></b>	
<b>Chronic effects</b>	: Contains material that may cause target organ damage, based on animal data.
<b>Carcinogenicity</b>	: Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure.
<b>Target organs</b>	: Contains material which may cause damage to the following organs: blood, kidneys, lungs, cardiovascular system, upper respiratory tract, skin, eye, lens or cornea.
<b><u>Over-exposure signs/symptoms</u></b>	
<b>Skin</b>	: Adverse symptoms may include the following: irritation redness
<b>Eyes</b>	: Adverse symptoms may include the following: pain or irritation watering redness

## 2. Hazards identification

**Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

## 3. Composition/information on ingredients

Name	CAS number	%
Sodium nitrite	7632-00-0	1 - 5
Potassium hydroxide	1310-58-3	1 - 5
dodecanedioic acid	693-23-2	1 - 5
disodium metasilicate	6834-92-0	0.5 - 1.5
Molybdic acid, disodium salt, dihydrate	10102-40-6	0.5 - 1.5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth 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 attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## 5. Fire-fighting measures

**Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.

### Extinguishing media

**Suitable** : Use an extinguishing agent suitable for the surrounding fire.

**Not suitable** : None known.

**Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 nitrogen oxides  
 metal oxide/oxides

## 5. Fire-fighting measures

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

**Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods for cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## 7. Handling and storage

**Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

Ingredient	Exposure limits
Potassium hydroxide	<p><b>ACGIH TLV (United States, 1/2011).</b>                      C: 2 mg/m<sup>3</sup>  <b>OSHA PEL 1989 (United States, 3/1989).</b>                      CEIL: 2 mg/m<sup>3</sup>  <b>NIOSH REL (United States, 6/2009).</b>                      TWA: 2 mg/m<sup>3</sup> 10 hours.</p>
Molybdic acid, disodium salt, dihydrate	<p><b>ACGIH TLV (United States, 1/2011).</b>                      TWA: 0.5 mg/m<sup>3</sup>, (as Mo) 8 hours. Form: Respirable fraction  <b>OSHA PEL 1989 (United States, 3/1989).</b></p>

## 8. Exposure controls/personal protection

TWA: 5 mg/m<sup>3</sup>, (as Mo) 8 hours. Form: Soluble  
**OSHA PEL (United States, 6/2010).**  
 TWA: 5 mg/m<sup>3</sup>, (as Mo) 8 hours.

### Consult local authorities for acceptable exposure limits.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Engineering measures** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

**Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and chemical properties

**Physical state** : Liquid.  
**Flash point** : Open cup: >200°C (>392°F)  
**Auto-ignition temperature** : Not available.  
**Flammable limits** : Not available.  
**Color** : Amber.  
**Odor** : oil  
**pH** : 10.1  
**Boiling/condensation point** : Not available.  
**Melting/freezing point** : -6°C (21.2°F)  
**Specific gravity** : 1.0483

## 9. Physical and chemical properties

Vapor pressure	: Not available.
Vapor density	: Not available.
Odor threshold	: Not available.
Evaporation rate	: Not available.
Solubility	: Easily soluble in the following materials: cold water and hot water.
Density	: 8.743 (lbs/gal)

## 10. Stability and reactivity

Chemical stability	: The product is stable.
Conditions to avoid	: No specific data.
Materials to avoid	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Potassium hydroxide	LD50 Oral	Rat	273 mg/kg	-
dodecanedioic acid	LD50 Dermal	Rat	>6000 mg/kg	-
disodium metasilicate	LD50 Oral	Rat	1153 mg/kg	-

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sodium nitrite	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	24 hours 1 milligrams	-
	Skin - Severe irritant	Guinea pig	-	24 hours 50 milligrams	-
	Skin - Severe irritant	Human	-	24 hours 50 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 50 milligrams	-
dodecanedioic acid disodium metasilicate	Eyes - Mild irritant	Rabbit	-	0.1 Milliliters	-
	Skin - Moderate irritant	Guinea pig	-	24 hours 250 milligrams	-
	Skin - Severe irritant	Human	-	24 hours 250 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 250 milligrams	-

### Carcinogenicity

#### Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Sodium nitrite	-	2A	-	-	-	-

## 12. Ecological information

Product/ingredient name	Result	Species	Exposure
Sodium nitrite	Acute EC50 159000 µg/l Marine water	Algae - Tetraselmis chuii	72 hours
	Acute EC50 1600000 µg/l Marine water	Algae - Tetraselmis chuii	96 hours
	Acute LC50 1100 µg/l Fresh water	Crustaceans - Cherax quadricarinatus	48 hours
	Acute LC50 48 µg/l Fresh water	Fish - Ictalurus punctatus - Fingerling	96 hours
Potassium hydroxide disodium metasilicate	Chronic NOEC 3.37 mg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	30 days
	Acute LC50 80000 µg/l Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute EC50 33.53 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours

**Partition coefficient: n-octanol/water** : Not available.

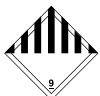

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.



Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	Not regulated.	-	-	-		
<b>IMDG Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite). Marine pollutant (Sodium nitrite)	9	III	 	<b>Emergency schedules (EmS)</b> F-A, S-F

## 14. Transport information

<b>IATA-DGR Class</b>	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium nitrite)	9	III	 	<b>Passenger and Cargo Aircraft</b> Quantity limitation: 450 L <b>Cargo Aircraft Only</b> Quantity limitation: 450 L <b>Limited Quantities - Passenger Aircraft</b> Quantity limitation: 30 kg
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PG\* : Packing group

## 15. Regulatory information

### United States

**HCS Classification** : Toxic material  
 Irritating material  
 Carcinogen  
 Target organ effects

**U.S. Federal regulations** : **TSCA 5(a)2 final significant new use rules:** Sodium nitrite  
**TSCA 8(a) IUR Exempt/Partial exemption:** Not determined  
**TSCA 8(d) H and S data reporting:** Sodium nitrite  
**TSCA 12(b) one-time export:** Sodium nitrite  
**United States inventory (TSCA 8b):** Not determined.

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.

**SARA 302/304 emergency planning and notification:** No products were found.

**SARA 302/304/311/312 hazardous chemicals:** Potassium hydroxide; disodium metasilicate; Sodium nitrite

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:**  
 Potassium hydroxide: Immediate (acute) health hazard, Delayed (chronic) health hazard;  
 disodium metasilicate: Immediate (acute) health hazard, Delayed (chronic) health hazard;  
 Sodium nitrite: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

**Clean Water Act (CWA) 311:** Potassium hydroxide; Sodium nitrite

### SARA 313

	Product name	CAS number	Concentration
<b>Form R - Reporting requirements</b>	Sodium nitrite	7632-00-0	4
<b>Supplier notification</b>	Sodium nitrite	7632-00-0	4

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

### State regulations

**Massachusetts** : The following components are listed: POTASSIUM HYDROXIDE; SODIUM NITRITE  
**New York** : The following components are listed: Potassium hydroxide; Sodium nitrite  
**New Jersey** : The following components are listed: POTASSIUM HYDROXIDE; CAUSTIC POTASH; SODIUM NITRITE; NITROUS ACID, SODIUM SALT  
**Pennsylvania** : The following components are listed: POTASSIUM HYDROXIDE (K(OH)); NITROUS ACID, SODIUM SALT  
**Rhode Island** : None of the components are listed.  
**California Prop. 65**

## 15. Regulatory information

**WARNING:** This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Methanol	No.	Yes.	No.	No.

**United States inventory (TSCA 8b)** : Not determined.

### Canada

**WHMIS (Canada)** : Class E: Corrosive material

### Canadian lists

**Canadian NPRI** : The following components are listed: Sodium nitrite

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory** : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### International regulations

**International lists** :

- Australia inventory (AICS):** Not determined.
- China inventory (IECSC):** Not determined.
- Japan inventory:** Not determined.
- Korea inventory:** Not determined.
- Malaysia Inventory (EHS Register):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- Taiwan inventory (CSNN):** Not determined.

## 16. Other information

**Hazardous Material Information System (U.S.A.)** :

Health	2
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)** :





## 16. Other information

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**Date of issue** : 6/8/2012.

**Date of previous issue** : No previous validation.

**Version** : 4

☑ Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.