



# SAFETY DATA SHEET BBJ POWER Coil Clean<sup>®</sup> Aerosol

BBJ Environmental Solutions  
"The standard of care for indoor air"

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product identifier

Product Name: BBJ POWER Coil Clean<sup>®</sup> Aerosol  
Product Codes(s): 522-xx  
Synonym(s): Ammonium bifluoride solution  
REACH Registration Number: No data available

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Cleaner for HVAC and refrigeration evaporator and condenser coil cleaner  
Uses advised against: No uses advised against

### 1.3 Details of the supplier and of the safety data sheet

Manufacturer/Distributor  
BBJ Environmental Solutions  
6321 Pelican Creek Circle  
Riverview, FL 33578 USA  
+1-813-622-8550; Toll free: +1-800-889-2251

### 1.4 Emergency telephone number: Chemtrec (24 hours) +1-800-424-9300

## SECTION 2 - HAZARDS IDENTIFICATION

### 2.1 Classification of substance or mixture

Product definition: Mixture  
Classification in accordance with 28 CFR 1940 (OSHA HCS)  
Gases under pressure - Compressed gas [H280]  
Skin Irritant - Category 2 [H315]  
Eye Irritant - Category 2A [H319]

### 2.2 Label Elements

Hazard Symbols:



Signal Word:

Warning

Hazard Statement(s):

H280 - Contains gas under pressure; may explode if heated  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation

Precautionary Statements:

[Prevention]

P264 - Wash hands or other skin areas contacting this product thoroughly after handling.  
P280 - Wear protective gloves, protective clothing, eye protection and face protection.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P321 - Specific treatment: Seek medical attention. Refer to Section 4 of this SDS.  
P362 - Take off contaminated clothing and wash before reuse.

[Response]

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

[Storage]

P337 + P332 + P313 - If eye irritation persists or if skin irritation occurs: Get medical attention.  
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C (122 °F).

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Not applicable

### 3.2 Mixtures

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
<5	Ammonium bifluoride	1341-49-7	215-676-4	009-009-00-4	H301, H314
<1	Cocamide diethanolamine	68603-42-9	271-657-0	-----	H315, H318
≤2	Hydrofluoric acid	7664-39-3	231-634-8	009-003-00-1	H300, H310, H314, H330

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.

## SECTION 4 - FIRST AID MEASURES

*This product contains approximately 0.6% free hydrofluoric acid (HF). Solutions of 2% or less hydrofluoric acid can cause burns. First aid techniques for treatment of hydrofluoric acid exposures are unique. Even low levels of exposure to HF require a rapid response and the use of calcium (most commonly calcium gluconate solutions or gels) to scavenge and neutralize the fluoride ion. Effects may be delayed, so treatment should be given even if exposure is suspected.*

### 4.1 Description of first aid measures

**Inhalation:** Move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Do not use mouth-to-mouth method if the victim inhaled this product; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If unconscious, maintain an open airway. Loosen tight fitting clothing such as a collar, tie, belt or waistband. Get immediate medical attention. Calcium gluconate 2.5% in normal saline may be given by nebulizer with oxygen. If unavailable, four calcium gluconate (500 mg) tablets should be given by mouth every two hours until the victim is admitted to the hospital.

**Eyes:** Immediately flush eyes with large amounts of water for at least 20 minutes, keeping eyelids apart and away from the eyeball. Remove contact lenses, if present and easy to do, after the first 2 minutes and continue rinsing. Immediately contact a doctor, preferably an ophthalmologist. If a doctor is not immediately available, apply one or two drops of 0.5% tetracaine hydrochloride solution or other topical ophthalmic anesthetic and continue irrigation. Do not use skin treatment preparations for burns for the eyes. Use no oils or greases unless instructed to do so by a doctor. Irrigate with 1% calcium gluconate in normal saline for one to two hours to prevent or lessen corneal damage.

**Skin:** Effects of skin contact may not be immediate and contact may not be painful at first. Flush skin with large amounts of water while removing contaminated clothing using PVC gloves and continue rinsing for at least 15 minutes. Apply and continually massage calcium gluconate gel (2.5%) into burn areas with gloved fingers until the pain is relieved. Use of local pain killers (anesthetics) is not recommended as reduction in pain is an indicator of the effectiveness of the treatment. Seek immediate medical attention. For large or severe burns four calcium gluconate (500 mg) tablets should be given by mouth every two hours, until the victim receives medical care.

**Ingestion:** Get immediate medical assistance. Rinse mouth with water if the victim is conscious. Remove dentures if any. DO NOT induce vomiting. Give 3 - 4 glasses of water to drink if the victim is conscious and alert and able to swallow. Give four calcium gluconate (500 mg) tablets every two hours; if not available, give the victim milk or milk of magnesia. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential health symptoms and effects

**Eyes:** Causes serious eye irritation and possible. Symptoms include pain, inflammation, swelling and tearing. May cause eye damage.

**Skin:** Causes skin irritation and possible burns. Skin exposures can cause symptoms ranging from minor skin irritation to painful redness and swelling. Effects of skin contact may not be immediate and contact may not be painful at first. Burns can occur if treatment is delayed after exposure. Skin irritation may appear stable only to get worse several hours after exposure. May cause hypocalcemia and other toxic effects.

**Inhalation:** Harmful if inhaled. Causes irritation to the nose, throat and respiratory tract. Symptoms may include headache, chest pains and cough. Breathing difficulties may be delayed in onset.

**Ingestion:** Causes burns to the mouth, mucous membranes, throat, esophagus and stomach. May cause perforation of the stomach and esophagus. Harmful if swallowed. Symptoms may include nausea, vomiting, abdominal pain and diarrhea, difficulty breathing, swelling of the throat, unconsciousness, coma and possible heart failure. Ingestion may also result in the fluoride ion binding with calcium to produce abnormally low levels of serum calcium (hypocalcaemia), which will impair many necessary physiological functions in the body (e.g. muscle contractions).

**Chronic:** Prolonged or repeated skin contact may lead to necrosis of the skin. Chronic fluoride poisoning can cause severe bone changes, loss of weight, anemia and dental defects. Repeated or prolonged exposures may cause sore throat, nosebleeds and chronic bronchitis. Chronic inhalation may cause hypocalcemia with nervous problems (tetany) and cardiac arrhythmia (reduced calcium levels, spasms and irregular heart beat).

### 4.3 Indication of any immediate medical attention and special treatment needed

#### Advice to Doctor and Hospital Personnel

**First aid and medical treatment must be specific for Hydrofluoric Acid Solutions.** The damage caused by this product is far more extensive than that caused by solutions of hydrochloric or other acids. Hydrofluoric Acid penetrates deeply and rapidly below fat layers, binding and depleting tissue calcium. Failure to start or provide correct medical treatment may be fatal.

## SECTION 5 - FIRE FIGHTING MEASURES

### 5.1 Extinguishable media

**Suitable methods of extinction:** Use media extinguishing media suitable for surrounding material.

**Unsuitable methods of extinction:** None known

### 5.2 Special hazards arising from the substance or mixture

May release hydrogen fluoride when heated. Contents under pressure (130 psi). Closed containers may explode due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

**Explosion hazards:** Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C (122 °F). Do not pierce, crush or burn containers, even if empty.

**Hazardous decomposition products:** May react with some metals to form potential flammable and toxic gases. During a fire the water contained in this product may evaporate, leaving a residue that may combust, producing corrosive fumes of fluorides as well as carbon monoxide and other unidentifiable organic compounds.

**Explosion hazards:** Release of hydrogen gas during a fire can form explosive mixtures with air, especially in confined spaces.

### 5.3 Advice for firefighters

Wear full protective equipment including self-contained breathing apparatus, a full acid resistant suit, PVC gloves and enclosed footwear. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. Water

contaminated by this material must be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing designated in Section 8. Evacuate non-essential personnel. Remove all sources of ignition. Good ventilation is necessary. Discharged material may produce hydrogen fluoride fumes. Puddles formed from spraying should be cleaned up promptly. Avoid handling damaged cans, especially if leaking.

### 6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

### 6.3 Methods and materials for containment and cleaning up

Puddles may form when using this product. Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect using non-sparking tools and place into an approved container for proper disposal. Observe possible material restrictions (Sections 7.2, 10.5 and 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material poses the same hazard as the spill product.

### 6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

## SECTION 7 - HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Pressurized container. Do not pierce or burn containers, even after use. Do not use if spray button is missing or defective. Do not spray on an open flame or any other incandescent material. Do not smoke while using this product. Do not cut, weld, solder, drill, grind, or expose containers to heat or other sources of ignition. Do not re-use empty containers. Do not get product in eyes, on skin or clothing. Avoid prolonged exposure to vapor, mist, or spray. Use only outdoors or in well-ventilated areas. Wear all appropriate protective equipment specified in Section 8. Observe good, industrial hygiene practices.

#### Advice on protection against fire and explosion

Keep away from heat, hot surfaces and other sources of ignition. Do not pierce, crush or incinerate containers, even if empty.

### 7.2 Conditions for safe storage, including any incompatibilities

Contents under pressure. Store away from direct sunlight in cool, dry, ventilated storage areas. Do not expose to heat or store at temperatures above 50 °C (122 ° F) as cans may burst or explode. Do not puncture, incinerate or crush containers. Do not handle or store near an open flame, heat or other sources of ignition. Protect containers from physical damage. Store away from incompatible materials, food and drink. Use appropriate containment to avoid environmental contamination. Ventilate closed areas. Do not take internally. Keep out of reach of children.

### 7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational exposure limits

CAS Number	Ingredient	OSHA	ACGIH	NIOSH
7664-39-3	Hydrofluoric Acid	3 ppm TWA	0.5 ppm TWA; 2 ppm Ceiling	3 ppm; 2.5 mg/m <sup>3</sup> TWA; 6 ppm; 5 mg/m <sup>3</sup> Ceiling; 30 ppm IDLH

### 8.2 Exposure controls

**Engineering measures:** Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable.

**Individual protection measures:** Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

**Hygiene measures:** Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking or using the lavatory.

**Eye/face protection:** Wear protective goggles. A full face shield is recommended. Refer to 29 CFR 1910.133, ANSI Z87.1 or European Standard EN 166.

**Hand protection:** Wear gloves recommended by glove supplier for protection against materials in section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

**Other protective equipment:** Wear protective clothing. Wear protective boots if the situation requires.

**Respiratory protection:** Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Environmental exposure controls:** Do not empty into drains.

*PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.*

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Clear, colorless to pale yellow liquid
Odor	Mild
Odor Threshold	No data available
Molecular Weight	Not applicable
Chemical Formula	Not applicable
pH	4.5 - 5.0
Freezing/Melting Point, Range	0 °C (32 °F)
Initial Boiling Point	100 °C (212 °F)
Evaporation Rate	No data available
Flammability (solid, gas)	Not applicable
Flash Point	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available
Lower Explosive Limit (LEL)	No data available
Upper Explosive Limit (UEL)	No data available
Vapor Pressure	17 mm Hg
Vapor Density	>1 (Air = 1)
Specific Gravity	1.00 - 1.05
Viscosity	No data available
Solubility in Water	Miscible
Partition Coefficient: n-octanol/water	No data available
Volatiles by Volume @ 21 °C	>95%

### 9.2 Other data

No data available

## SECTION 10 - STABILITY AND REACTIVITY

### 10.1 Reactivity

No special reactivity has been reported.

### 10.2 Chemical stability

Stable under recommended storage conditions, handling and use.

### 10.3 Possibility of hazardous reactions

May generate hydrogen fluoride when heated. Releases ammonia when in contact with alkalis.

### 10.4 Conditions to avoid

Extreme temperatures. Contact with incompatible materials.

### 10.5 Incompatible materials

Strong oxidizing agents, strong alkalis, strong bases, strong reducing agents

### 10.6 Hazardous decomposition products

Thermal decomposition products include hydrogen fluoride gas, hydrogen gas, oxides of carbon, ammonia and nitrogen oxides.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Oral Toxicity

No data available

#### Acute inhalation toxicity

No data available

#### Acute dermal toxicity

No data available

#### Skin irritation

Causes skin irritation and possible burns

#### Eye irritation

Causes serious eye irritation, possible burns and possible eye damage

#### Sensitization

No data available

#### Genotoxicity in vitro

No data available

#### Mutagenicity

No data available

#### Specific organ toxicity - single exposure

No data available

#### Specific organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

## 11.2 Further information

Cocoamide DEA (CAS #68603-42-9): IARC Group 2B Carcinogen - *Possibly carcinogenic to humans*. Not identified as a probable, possible, potential or confirmed carcinogen by ACGIH, NTP or OSHA.

No data is available regarding the mutagenicity or teratogenicity of this product, nor is there any available data that indicated that it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice. Product should be handled with care.

## SECTION 12 - ECOLOGICAL INFORMATION

### 12.1 Toxicity

The aquatic toxicity of this product has not been evaluated.

**Acute and prolonged toxicity to fish - Hydrofluoric Acid:** Fish (fresh water), lethal concentration: 60 ppm (time period not specified)

### 12.2 Persistence and degradability

The organic components of this product are biodegradable. Inorganic substances are not biodegradable. Methods for the determination of biodegradability are not applicable to inorganic substances.

### 12.3 Bioaccumulation potential

Not expected to bioaccumulate

### 12.4 Mobility in soil, water

Expected to have high mobility in soil.

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available.

### 12.6 Other adverse effects

#### Additional ecological information

Do not allow material to run into surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## SECTION 13 - DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Methods of disposal:** The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**Hazardous waste:** The classification of this product may meet the criteria for a hazardous waste.

## SECTION 14 - TRANSPORT INFORMATION

**Note:** Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

#### US DOT (Domestic Ground Transportation)

**Proper Shipping Name:** Aerosols, non-flammable (each not exceeding 1 liter capacity)  
**Hazard Class:** 2.2  
**UN/NA:** UN1950  
**Packing Group:** -----  
**NAERG:** Guide #126  
**Packaging Authorization:** Non-Bulk: None; Bulk: None  
**Packaging Exceptions:** 49 CFR 173.306

#### IMO/IMDG (Water Transportation)

**Proper Shipping Name:** Aerosols, non-flammable (each not exceeding 1 liter capacity)  
**Hazard Class:** 2.2  
**UN/NA:** UN1950  
**Packing Group:** -----  
**Marine Pollutant:** No  
**EMS Number:** F-D, S-U

#### ICAO/IATA (Air Transportation)

**Proper Shipping Name:** Aerosols, non-flammable (each not exceeding 1 liter capacity)  
**Hazard Class:** 2.2  
**UN/NA:** UN1950  
**Packing Group:** -----  
**Quantity Limitations:** 49 CFR 175.27 and 175.75 - Cargo Aircraft Only: 150 kg; Passenger Aircraft: 75 kg

#### RID/ADR (Rail Transportation)

**Proper Shipping Name:** Aerosols, non-flammable (each not exceeding 1 liter capacity)  
**Hazard Class:** 2.2  
**UN/NA:** UN1950  
**Packing Group:** -----



## SECTION 15 - REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

#### U. S. Federal Regulations

**OSHA Hazard Communication Standard:** This material is classified as hazardous in accordance with OSHA 29 CFR 1910-1200.

**OSHA Process Safety Management Standard:** Hydrofluoric Acid (CAS # 7664-39-3) is regulated under OSHA PSM Standard 29 CFR 1910.119.

**EPA Risk Management Planning Standard:** Hydrofluoric Acid (CAS #7664-39-3) is regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

**EPA Federal Insecticide, Fungicide and Rodenticide Act:** This product is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

**TSCA Status:** All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory. This product is subject to TSCA 12(b) Export Notification.

#### **Superfund Amendments and Reauthorization Act (SARA)**

**SARA Section 311/312 Hazard Categories:** Acute Health Hazard, Chronic Health Hazard

**SARA 313 Information:** Hydrofluoric Acid (CAS #7664-39-3) is subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

**SARA 302/304 Extremely Hazardous Substance:** Hydrofluoric Acid is subject to reporting requirements of these sections of Title III of SARA.

**SARA 302/304 Emergency Planning & Notification:** Hydrofluoric Acid is subject to reporting requirements of these sections of Title III of SARA.

**Comprehensive Response Compensation and Liability Act (CERCLA):** This product contains the following CERCLA reportable substances:

Ammonium Bifluoride (CAS #1341-49-7), RQ - 45.36 kg (100 lbs)

Hydrofluoric Acid (CAS #7664-39-3), RQ - 45.36 kg (100 lbs)

#### **Clean Air Act (CAA)**

Hydrofluoric Acid (CAS #7664-39-3), as 100% HF, is listed as a Hazardous Air Pollutant (HAP) as designated in CAA Section 112 (b).

Hydrofluoric Acid (CAS #7664-39-3), as 100% HF, is found on the CAA Section 112 (b) list of Accidental Release Prevention Substances.

This product does not contain any Class 1 or Class 2 Ozone depletors.

#### **Clean Water Act (CWA)**

Hydrofluoric Acid is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### U.S. State Regulations

##### **California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986**

Cocamide DEA (CAS #68603-42-9) and other chemicals contained in trace quantities are known to the State of California to cause cancer.

##### **Other U.S. State Inventories**

Hydrofluoric Acid (CAS #7664-39-3) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants List(s): CA, DE, ID, IL, ME, MA, MN, NC, NJ, NY, PA, RI, WA, WI.

#### Canada

##### **WHMIS Hazard Symbol and Classification**



A - Contents under pressure



D2A - Very toxic material causing other toxic effects - carcinogenicity in animals  
D2B - Toxic material causing other toxic effects - skin and eye irritation

**Canadian National Pollutant Release Inventory (NPRI):** Hydrofluoric Acid is listed on the NPRI.

#### European Economic Community

##### **Labeling (67/548/EEC or 1999/45/EC)**



Xi - Irritant

**Risk Phrases:** R36/37/38 - Irritating to eyes, respiratory system and skin.

**Safety Phrases:** S2 - Keep out of the reach of children.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39 - Wear suitable gloves and eye/face protection.

**WGK, Germany (Water danger/protection):** 1

#### Global Chemical Inventory Lists

Country	Inventory Name	Inventory Listing*
Canada:	Domestic Substance List (DSL).	Yes
Canada:	Non-Domestic Substance List (NDSL).	No
Europe:	Inventory of New and Existing Chemicals (EINECS)	Yes
United States:	Toxic Substance Control Act (TSCA)	Yes
Australia:	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand:	New Zealand Inventory of Chemicals (NZIoC)	Yes
China:	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan:	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea:	Existing Chemicals List (ECL)	Yes
Philippines:	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

\*Yes - All components of this product are in compliance with the inventory requirements administered by the governing country.

No - One or more components of this product are not on the inventory and are not exempt from listing.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16 - OTHER INFORMATION

### Hazardous Material Information System (HMIS)

Health	* 2
Flammability	0
Physical Hazard	0
Personal Protection	H

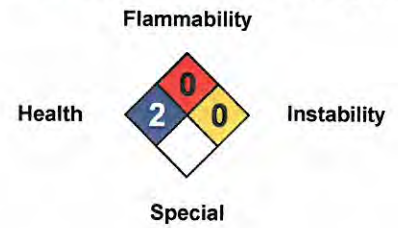
### HMIS and NFPA Hazard Rating Legend

\* = Chronic Health Hazard      2 = MODERATE  
0 = INSIGNIFICANT                3 = HIGH  
1 = SLIGHT                            4 = EXTREME



\*It is recommended that a full face shield be worn in addition to splash goggles when using this product.

### National Fire Protection Association (NFPA)



### Full text of GHS Hazard Phrases referenced in Section 3 (not covered in Section 2)

H300 - Fatal if swallowed  
H310 - Fatal in contact with skin  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H330 - Fatal if inhaled

BBJ Environmental Solutions assumes no legal responsibility or liability from the described product's use. All chemicals possess unknown potential hazards. The information herein should be used only to supplement the end user's existing knowledge. Read directions for proper use. This SDS was written for the product as packaged. Cleaning Contractors shall comply with all applicable OSHA regulations.

Preparation date: 18 July 2016



**SAFETY DATA SHEET**  
**BBJ Mold Control®**  
 for HVAC Systems and Air Ducts

**BBJ Environmental Solutions**  
 "The standard of care for indoor air"

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

**1.1 Product identifier**

Product Name: BBJ Mold Control® (for HVAC Systems and Air Ducts)  
 Product Codes(s): 486-04, 490-06  
 EPA Registration No.: 67212-3  
 Synonym(s): Microbiocide in an aqueous solution  
 REACH Registration Number: No data available

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

General use: Microbial growth inhibitor for use on floors and walls  
 Uses advised against: No uses advised against

**1.3 Details of the supplier and of the safety data sheet**

**Manufacturer**  
 BBJ Environmental Solutions  
 6321 Pelican Creek Circle  
 Riverview, FL 33578 USA  
 +1-813-622-8550; Toll free: +1-800-889-2251

**1.4 Emergency telephone number: Chemtrec (24 hours) +1-800-424-9300**

**SECTION 2 - HAZARDS IDENTIFICATION**

**2.1 Classification of substance or mixture**

Product definition: Mixture  
 Classification in accordance with 28 CFR 1910 (OSHA HCS) and Regulation (EC) No 1272/2008  
 Not a dangerous product according to OSHA or to European Union Legislation

**2.2 Label Elements**

Not a dangerous substance according to GHS

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

Not applicable

**3.2 Mixtures**

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
<1	Dipropylene glycol monomethyl ether	34590-94-8	252-104-2	-----	-----
<0.1	2-Bromo-2-nitropropane-1,3-diol	52-51-7	200-143-0	603-085-00-8	H302, H312, H315, H318, H335, H400

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.

**SECTION 4 - FIRST AID MEASURES**

**4.1 Description of first aid measures**

**Inhalation:** If product vapors or mists cause respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist, seek medical attention immediately.

**Eyes:** Immediately flush eyes with large amounts of water for 15 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain immediate medical attention, preferably from an ophthalmologist.

**Skin:** Wash affected area with soap and water. Wash contaminated clothing and shoes thoroughly before reuse. Seek prompt medical attention if rash develops or if you feel unwell.

**Ingestion:** Rinse mouth with water. If conscious and alert drink 2 - 4 cupfuls of milk or 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.

**4.2 Most important symptoms and effects, both acute and delayed**

**Potential health symptoms and effects**

**Eyes:** May cause eye irritation and chemical conjunctivitis.

**Skin:** None expected. May cause mild irritation of unprotected skin with repeated and prolonged use.

**Inhalation:** None expected. Inhalation of mists, vapors and/or spray may cause mild irritation of the respiratory system.

**Ingestion:** May cause gastrointestinal upset with nausea, vomiting and diarrhea.

**Chronic:** No information available.



#### 4.3 Indication of any immediate medical attention and special treatment needed

##### Advice to Doctor and Hospital Personnel

Treat symptomatically and supportively.

### SECTION 5 - FIRE FIGHTING MEASURES

#### 5.1 Extinguishable media

**Suitable methods of extinction:** Use extinguishing media suitable for surrounding fire.

**Unsuitable methods of extinction:** None known

#### 5.2 Special hazards arising from the substance or mixture

Closed containers may explode (due to the buildup of pressure) when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

#### 5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat. If possible, firefighters should control runoff water to prevent environmental contamination.

### SECTION 6 - ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing designated in Section 8. Ventilate the area.

#### 6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

#### 6.3 Methods and materials for containment and cleaning up

Cover drains. Cover with a large quantity of inert absorbent. Collect product using a shovel or broom and into place into an approved container for proper disposal. Observe possible material restrictions (section 7.2 and 10.5). Clean contaminated area with soap and water.

#### 6.4 Reference to other sections

For indications about waste treatment, see section 13.

### SECTION 7 - HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Observe label precautions. Wear all appropriate protective equipment specified in Section 8. Keep containers closed when not in use.

##### Advice on protection against fire and explosion

Keep away from heat, sparks and flame. Solutions containing glycol ethers in water can form flammable vapors with air if heated sufficiently.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep in cool, dry, ventilated storage areas in closed containers. Transfer only to approved containers having correct labeling. Containers that have been opened should be carefully resealed and kept upright to prevent leakage. Do not take internally. Keep out of reach of children.

#### 7.3 Specific end uses

Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 Control parameters

##### Occupational exposure limits

CAS Number	Ingredient	OSHA PEL	ACGIH TLV
34590-94-8	Dipropylene glycol monomethyl ether	600 ppm; 100 ppm; skin	100 ppm TWA; 150 ppm STEL; skin

A "skin" notation following the inhalation exposure guideline refers to the potential for dermal absorption of the material, including eyes and mucous membranes, either by direct contact with vapors or by direct skin contact. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposure should be considered.

#### 8.2 Exposure controls

**Engineering Measures:** Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to See Section 7.1.

**Individual protection measures:** Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

**Hygiene measures:** Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking or using the lavatory.

**Eye/face protection:** Wear protective goggles or safety glasses with unperforated side shields during use. Refer to 29 CFR 1910.133, ANSI Z87.1 or European Standard EN 166.

**Hand Protection:** Wear gloves recommended by glove supplier for protection against materials in section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

**Other protective equipment:** Protective clothing. Wear protective boots if the situation requires.

**Respiratory Protection:** Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls: Do not empty into drains.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Clear, colorless liquid
Odor	Mild
Odor Threshold	Not determined
Molecular Weight	Not applicable
Chemical Formula	Not applicable
pH	2.5 - 4.5 @ 20 °C (68 °F)
Freezing/Melting Point	0 °C (32 °F)
Initial Boiling Point	100 °C (212 °F)
Evaporation Rate	Not determined
Flammability (solid, gas)	Not applicable
Flash Point	Not determined
Autoignition Temperature	Not determined
Decomposition Temperature	Not determined
Lower Explosive Limit (LEL)	Not determined
Upper Explosive Limit (UEL)	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Specific Gravity	1.00 - 1.05
Viscosity	Not determined
Solubility in Water	Dispersible
Partition Coefficient: n-octanol/water	<1
Volatiles by Volume @ 21 °C	>99%

### 9.2 Other data

No data available

## SECTION 10 - STABILITY AND REACTIVITY

### 10.1 Reactivity

No special reactivity has been reported.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4 Conditions to avoid

Extreme temperatures. Contact with incompatible materials.

### 10.5 Incompatible materials

Strong oxidizing agents, amines and alkalis

### 10.6 Hazardous decomposition products

Thermal decomposition products include carbon oxides, nitrogen oxides, aldehydes, ketones, organic acids, formaldehyde.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Oral Toxicity

Not determined. Expected to have low toxicity.

#### Acute inhalation toxicity

Not determined. Expected to be non-toxic by inhalation.

#### Acute dermal toxicity

Not determined. Expected to be non-toxic by dermal contact.

#### Skin irritation

Not expected to cause skin irritation.

#### Eye irritation

Draize Test - Rabbit: Practically non-irritating to eye; conjunctivitis in some test subjects- 1 h; no ocular irritation after 24 hours.

#### Sensitization

Negative

#### Genotoxicity in vitro

No data available

#### Mutagenicity

No data available

#### Specific organ toxicity - single exposure

No data available

#### Specific organ toxicity - repeated exposure

No data available

**Aspiration hazard**  
No data available

## 11.2 Further information

None of the components of this product are listed as carcinogens by ACGIH, IARC, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this product in humans, nor is there any available data that indicates it causes adverse developmental or fertility effects.

Further data: Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12 - ECOLOGICAL INFORMATION

### 12.1 Toxicity

This product is not expected to be toxic to aquatic organisms.

### 12.2 Persistence and degradability

Material is expected to be biodegradable.

### 12.3 Bioaccumulation potential

This material is not expected to bioaccumulate.

### 12.4 Mobility

Potential for mobility of this product in natural bodies of water or moist soil is not expected to be an important fate process. The EPA does not have specific data for mobility of Bronopol in soil; however it does not anticipate ground water contamination from the use of this material. Based on the that dipropylene glycol monomethyl ether is completely miscible with water, it is assumed that there will be no tendency for accumulation to soil and sediment in a soil-water matrix.

### 12.5 Results of PBT and vPvB assessment

No data available

### 12.6 Other adverse effects

#### Additional ecological information

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Do not allow material to run into surface waters, wastewater, sewers or soil.

## SECTION 13 - DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Methods of disposal:** The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

**Hazardous waste:** The classification of this product may meet the criteria for a hazardous waste.

## SECTION 14 - TRANSPORT INFORMATION

**Note:** Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

**NOT REGULATED FOR TRANSPORT**

## SECTION 15 - REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

#### U. S. Federal Regulations

**OSHA Hazard Communication Standard:** This material is classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

**OSHA Process Safety Management Standard:** Components of this product are not regulated under OSHA PSM Standard 29 CFR 1910.119.

**EPA Risk Management Planning Standard:** Components of this product are not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

**TSCA Status:** All components of this product are listed on the TSCA Inventory. This product is not subject to TSCA 12(b) Export Notification.

#### **Superfund Amendments and Reauthorization Act (SARA)**

**SARA Section 311/312 Hazard Categories:** This product does not contain any chemical components which are subject to the reporting requirements of Section 311/312 of the Emergency Planning and Community Right-to Know Act of 1986.

**SARA 313 Information:** None of the chemicals in this product exceed the threshold (de minimis) reporting levels established by Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

#### **SARA 302/304 Extremely Hazardous Substance**

No components of the product exceed the threshold (de minimis) reporting levels established by of these sections of Title III of SARA.

#### **SARA 302/304 Emergency Planning & Notification**

No components of the product exceed the threshold (de minimis) reporting levels established by of these sections of Title III of SARA.

**Comprehensive Response Compensation and Liability Act (CERCLA):** Contains no chemicals regulated under CERCLA.

#### **Clean Air Act (CAA)**

This product does not contain any chemicals that are listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain any Class 1 Ozone depleters.

This product does not contain any Class 2 Ozone depleters.

### Clean Water Act (CWA)

None of the chemicals in this product are listed as Hazardous Substances under the CWA.  
None of the chemicals in this product are listed as Priority Pollutants under the CWA.  
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

### U.S. State Regulations

#### California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

This product contains no chemical(s) known to the state of California to cause cancer, birth defects or other reproductive harm.

#### Other U.S. State Inventories

None of the chemicals in this product exceed the threshold (de minimis) reporting levels established by State Hazardous Substance Inventories or Right-to-Know lists and/or Air Quality/Air Pollutants lists.

### Canada

WHMIS Hazard Symbol and Classification: None allocated

Canadian National Pollutant Release Inventory (NPRI): None of the ingredients in this product are listed on the NPRI.

### European Economic Community

WGK, Germany (Water danger/protection): Non-hazardous

### Global Chemical Inventory Lists

Country	Inventory Name	Inventory Listing*
Canada:	Domestic Substance List (DSL).	Yes
Canada:	Non-Domestic Substance List (NDSL).	No
Europe:	Inventory of New and Existing Chemicals (EINECS)	Yes
United States:	Toxic Substance Control Act (TSCA)	Yes
Australia:	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand:	New Zealand Inventory of Chemicals (NZIoC)	Yes
China:	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan:	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea:	Existing Chemicals List (ECL)	Yes
Philippines:	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

\*Yes - All components of this product are in compliance with the inventory requirements administered by the governing country.

No - one or more components of this product are not on the inventory and are not exempt from listing.

## 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16 - OTHER INFORMATION

### Hazardous Material Information System (HMIS)

Health	0
Flammability	0
Physical Hazard	0
Personal Protection	B

#### HMIS and NFPA Hazard Rating Legend

\* = Chronic Health Hazard      2 = MODERATE  
0 = INSIGNIFICANT                3 = HIGH  
1 = SLIGHT                            4 = EXTREME



### National Fire Protection Association (NFPA)

#### Flammability



### Full text of GHS Hazard Phrases referenced in Section 3 (not covered in Section 2)

H302 - Harmful if swallowed  
H312 - Harmful in contact with skin  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H335 - May cause respiratory irritation  
H400 - Very toxic to aquatic life

BBJ Environmental Solutions assumes no legal responsibility or liability from the described product's use. All chemicals possess unknown potential hazards. The information herein should be used only to supplement the end user's existing knowledge. Read directions for proper use. This SDS was written for the product as packaged. Product may turn yellow, orange or brown if pH becomes alkaline; however, this should not affect the product's effectiveness. If frozen, crystals may remain in the container after thawing. Shake until dissolved before using. Cleaning Contractors shall comply with all applicable OSHA regulations.

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