# SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2019
Date Updated: June 17, 2019

## SECTION 1. - - - - - - - - - PRODUCT AND COMPANY IDENTIFICATION- - - - - - - - - -

| | |
|---|---|
| **Product Name** | Acryl/Bis (29: 1) Premix powder |
| **Product Code(s)** | A0004 |
| **Recommended Use** | For Laboratory Research Use Only<br>Not for Human or Animal Drug Use |
| **Supplier** | Bio Basic Inc. |
| **Address** | 20 Konrad Crescent, Markham, Ontario, Canada, L3R 8T4 |
| **Telephone** | (905) 474 4493 |
| **Fax** | (905) 474 5794 |
| **For Chemical Emergency Phone#** | (416) 995 9730 |

## SECTION 2. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - -

### Emergency Overview

**Target Organs**
Nerves, Kidney

**WHMIS Classification**

| | | |
|---|---|---|
| D1B | Toxic Material Causing Immediate and Serious Toxic Effects | Toxic by ingestion |
| D2A | Very Toxic Material Causing Other Toxic Effects | Toxic by inhalation. |
| D2B | Toxic Material Causing Other Toxic Effects | Chronic toxicity<br>Carcinogen<br>Reproductive hazard<br>Moderate skin irritant<br>Moderate eye irritant<br>Skin sensitiser<br>Mutagen |

**GHS Classification**

Acute toxicity, Oral (Category 3)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Skin sensitisation (Category 1)
Germ cell mutagenicity (Category 1B)
Carcinogenicity (Category 1B)
Reproductive toxicity (Category 2)
Specific target organ toxicity - repeated exposure, Oral (Category 1), Peripheral nervous system Acute aquatic toxicity (Category 3)

**GHS Label elements, including precautionary statements**

Pictogram

Signal word Danger

Hazard statement(s)

| | |
|---|---|
| H301 | Toxic if swallowed. |
| H312 + H332 | Harmful in contact with skin or if inhaled |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H340 | May cause genetic defects. |
| H350 | May cause cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H372 | Causes damage to organs (Peripheral nervous system) through prolonged or lenses, if repeated exposure if swallowed. |
| H402 | Harmful to aquatic life. |

Precautionary statement(s)

| | |
|---|---|
| P201 | Obtain special instructions before use. |
| P280 | Wear protective gloves/ protective clothing. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact present and easy to do. Continue rinsing. |
| P308 + P313 | IF exposed or concerned: Get medical advice/ attention. |

**HMIS Classification**

| | |
|---|---|
| **Health hazard**: | 2 |
| **Chronic Health Hazard**: | * |
| **Flammability**: | 0 |
| **Physical hazards**: | 1 |

**Potential Health Effects**

| | |
|---|---|
| **Inhalation** | Toxic if inhaled. Causes respiratory tract irritation. |
| **Skin** | Causes skin irritation. |
| **Eyes** | Causes eye irritation. |
| **Ingestion** | Toxic if swallowed. |

## SECTION 3. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -

| Chemical Name | EC No. | CAS-No | Weight % |
|---|---|---|---|
| Acrylamide | 201-173-7 | 79-06-1 | 95-98 |
| N,N'-Methylenediacrylamide | 203-750-9 | 110-26-9 | 2-5 |

## SECTION 4. - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - -

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

**If inhaled**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**In case of eye contact**
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## SECTION 5. - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -

**Conditions of flammability**
Not flammable or combustible.

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters**
Wear self-contained breathing apparatus for firefighting if necessary.

**Hazardous combustion products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)

**Explosion data - sensitivity to mechanical impact**
No data available

**Explosion data - sensitivity to static discharge**
No data available

## SECTION 6. - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - - -

**Personal precautions**
Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## SECTION 7. - - - - - - - - - - HANDLING AND STORAGE- - - - - - - - - -

**Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**
Keep container tightly closed in a dry and well-ventilated place.

Light sensitive.

## SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

**Components with workplace control parameters**

| Components | CAS-No. | Value | Control parameters | Basis |
|---|---|---|---|---|
| Acrylamide | 79-06-1 | TWA | 0.030000 mg/m3 | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL) |
| Remarks | Substance may be readily absorbed through intact skin | | | |
| | | TWAEV | 0.03 ppm | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| | A substance to which exposure must be reduced to a minimum in accordance with section 42<br>Skin (percutaneous)<br>Carcinogenic effect suspected in humans | | | |
| | | TWAEV | 0.030000 ppm | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure |

| | | | | |
|---|---|---|---|---|
| | | | | values for airborne contaminants |
| | A substance to which exposure must be reduced to a minimum in accordance with section 42<br>Skin (percutaneous)<br>Carcinogenic effect suspected in humans | | | |
| | | TWA | 0.030000 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | Central Nervous System impairment<br>Confirmed animal carcinogen with unknown relevance to humans<br>Danger of cutaneous absorption | | | |
| | | TWA | 0.030000 mg/m3 | Canada. British Columbia OEL |
| | IARC '2A' applies to substances deemed probably carcinogenic to humans on the basis of limited evidence of carcinogenicity in humans.<br>Contributes significantly to the overall exposure by the skin route. Vapour and aerosol. | | | |
| | | TWAEV | 0.030000 mg/m3 | Canada. Ontario OELs |
| | Skin | | | |
| | | TWA | 0.030000 mg/m3 | Canada. British Columbia OEL |
| | IARC '2A' applies to substances deemed probably carcinogenic to humans on the basis of limited evidence of carcinogenicity in humans.<br>Contributes significantly to the overall exposure by the skin route. Vapour and aerosol. | | | |
| | | TWA | 0.030000 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |

**Personal protective equipment**

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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).

**Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the

product.

**Specific engineering controls**
Use mechanical exhaust or laboratory fumehood to avoid exposure.

## SECTION 9. - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - -

**Appearance**

| | |
|---|---|
| Form | solid |
| Colour | No data available |

**Safety data**

| | |
|---|---|
| pH | No data available |
| Melting point/freezing point | No data available |
| Boiling point | No data available |
| Flash point | No data available |
| Ignition temperature | No data available |
| Auto-ignition temperature | No data available |
| Lower explosion limit | No data available |
| Upper explosion limit | No data available |
| Vapour pressure | No data available |
| Density | No data available |
| Water solubility | No data available |
| Partition coefficient: n-octanol/water | No data available |
| Relative vapour density | No data available |
| Odour | No data available |
| Odour Threshold | No data available |
| Evaporation rate | No data available |

## SECTION 10. - - - - - - - - -STABILITY AND REACTIVITY - - - - - - - - -

**Chemical stability**
Stable under recommended storage conditions.

**Possibility of hazardous reactions**
No data available

**Conditions to avoid**
No data available

**Materials to avoid**
Acids, Bases, Oxidizing agents, Reducing agents, Copper, Brass, Aluminum, Iron and iron salts., Free radical initiators

**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx) Other decomposition products - No data available

## SECTION 11. - - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - -

### Acute toxicity

**Oral LD50**
No data available

LD50 Oral - Rat - 177 mg/kg (Acrylamide)

**Inhalation LC50**
No data available

LC50 Inhalation - Rat - 4 h - > 1,500 mg/m3(Acrylamide)

**Dermal LD50**
No data available

LD50 Dermal - Rabbit - 1,141 mg/kg (Acrylamide)

**Other information on acute toxicity**
No data available (Acrylamide)

**Skin corrosion/irritation**
Skin - Rabbit - No skin irritation - OECD Test Guideline 404 (Acrylamide)

**Serious eye damage/eye irritation**
Eyes - Rabbit - Irritating to eyes. - OECD Test Guideline 405 (Acrylamide)

**Respiratory or skin sensitisation**
Maximisation Test (GPMT) - Guinea pig - OECD Test Guideline 406 - May cause allergic skin reaction. (Acrylamide)

**Germ cell mutagenicity**
May alter genetic material. In vivo tests showed mutagenic effects (Acrylamide)

**Carcinogenicity**

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Possible human carcinogen (Acrylamide)

IARC: 2A - Group 2A: Probably carcinogenic to humans (Acrylamide)

**Reproductive toxicity**
May cause reproductive disorders. Suspected human reproductive toxicant (Acrylamide)

**Teratogenicity**
Animal testing did not show any effects on foetal development. (Acrylamide)

**Specific target organ toxicity - single exposure (Globally Harmonized System)**
No data available (Acrylamide)

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**
Oral - Causes damage to organs through prolonged or repeated exposure. - Peripheral nervous system

**Aspiration hazard**
No data available (Acrylamide)

**Potential health effects**

| | |
|---|---|
| **Inhalation** | Toxic if inhaled. Causes respiratory tract irritation. |
| **Ingestion** | Toxic if swallowed. |
| **Skin** | Causes skin irritation. |
| **Eyes** | Causes eye irritation. |

**Signs and Symptoms of Exposure**
Acrylamide toxicity is manifested as a sensorimotor peripheral neuropathy., Drowsiness, Loss of balance, Confusion.

**Synergistic effects**
No data available

**Additional Information**
RTECS: Not available

## SECTION 12. - - - - - - - - - ECOLOGICAL INFORMATION - - - - - - - - - -

**Toxicity**

| | |
|---|---|
| Toxicity to fish | LC50 - Pimephales promelas (fathead minnow) - 90 mg/l - 96 h (Acrylamide) |
| | NOEC - Cyprinus carpio (Carp) - 5 mg/l - 28 d (Acrylamide) |
| Toxicity to daphnia and other aquatic invertebrates | mortality NOEC - Daphnia magna (Water flea) - 60 mg/l - 48 h (Acrylamide) |
| | EC50 - Daphnia magna (Water flea) - 160 mg/l - 48 h (Acrylamide) |

**Persistence and degradability**

| | |
|---|---|
| Biodegradability | Result: 100 % - Readily biodegradable<br>Method: OECD Test Guideline 301D |

**Bioaccumulative potential**

| | |
|---|---|
| Bioaccumulation | Oncorhynchus mykiss (rainbow trout) - 72 h (Acrylamide)<br>Bioconcentration factor (BCF): 1.65 |

**Mobility in soil**
No data available (Acrylamide)

**PBT and vPvB assessment**
No data available

**Other adverse effects**

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

Harmful to aquatic life.

No data available

## SECTION 13. - - - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - - - -

**Product**
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**
Dispose of as unused product.

## SECTION 14. - - - - - - - - - - TRANSPORT INFORMATION - - - - - - - - -

**DOT (US)**
UN number: 2074 Class: 6.1 Packing group: III
Proper shipping name: Acrylamide, solid
Reportable Quantity (RQ):
Marine pollutant: No
Poison Inhalation Hazard: No

**IMDG**

UN number: 2074 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: ACRYLAMIDE, SOLID
Marine pollutant: No

**IATA**
UN number: 2074 Class: 6.1 Packing group: III
Proper shipping name: Acrylamide, solid

## SECTION 15. - - - - - - - - - REGULATORY INFORMATION - - - - - - - - - -

### WHMIS Classification

| | | |
|---|---|---|
| D1B | Toxic Material Causing Immediate and Serious Toxic Effects | Toxic by ingestion |
| D2A | Very Toxic Material Causing Other Toxic Effects | Toxic by inhalation. |
| D2B | Toxic Material Causing Other Toxic Effects | Chronic toxicity<br>Carcinogen<br>Reproductive hazard<br>Moderate skin irritant<br>Moderate eye irritant<br>Skin sensitiser<br>Mutagen |

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.

## SECTION 16. - - - - - - - - - - OTHER INFORMATION- - - - - - - - - - - -

Further information: no limited for paper copy, just for internal uses.
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of SDS**