SAFETY DATA SHEET

Section 1. Identification of the substance/mixture and of the company/undertaking

Product identifier

Product Name: BM-28 PLUS, 2% Glutaraldehyde

Recommended Use(s): Instrument immersion disinfectant

Details of the supplier of the safety data sheet

Manufacturer: N.A.K.P Foto Inc.
2575 De Miniac
Ville Saint Laurent, Quebec H4S 1E5
Canada
Website: www.nakpfoto.com
Email: paul@nakpfoto.com
Tel (514) 932-8057
Fax (514) 932-8057

Distributor: B.M. Group Inc.
5890 Monkland Ave., suite 16
Montreal Quebec H4A 1G2
Canada
Website: http://www.bmcanada.ca
Email: info@bmcanada.ca
Tel: (514) 738-5200 Toll Free 1-800-561-9818
Fax: (514) 738-2290

Emergency telephone number

Emergency Contact: Emergency: 1-800-463-5060 Poison Control Center in Quebec, Canada

Notes:

This product is registered with Health Canada as a disinfectant. While this product is generally safe and effective during normal use as per directions on label and as per guidelines in this SDS, this SDS also contains valuable information critical to the safe handling and proper use of the product for large production plants, industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product.

Section 2. Hazards identification

Classification of the substance or mixture

GHS Classification for mixture:
- Hazardous to the aquatic environment, short-term (Acute) - Category 3
- Specific target organ toxicity - single exposure - Category 3 (Respiratory)
- Respiratory sensitization - Category 1
- Skin sensitization - Category 1
- Serious eye damage - Category 1
- Skin irritation - Category 2

Label elements

Pictograms:

Signal Words:
Danger

Hazard Statements:
Read the label before using. Keep out of reach of children.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.
Harmful to aquatic life.

Precautionary Statements:

**Prevention**
Keep container tightly closed.
Avoid breathing dust, fume, gas, mist, vapors, spray.
Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves, protective clothing, eye protection.
[In case of inadequate ventilation] wear respiratory protection.

**Response**
Immediately call a POISON CENTER, doctor.
If experiencing respiratory symptoms: Call a doctor.
Call a doctor if you feel unwell.
If skin irritation occurs: Get medical attention / advice.
IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
IF IN EYES: Rinse cautiously with water for several minutes.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing. And wash it before reuse.

**Storage**
Store in a well-ventilated place. Store in a cool dry place.
Store locked up.

**Disposal**
Dispose of the empty container in accordance with municipal/provincial/territorial requirements. Offer for recycling, if available.

### Section 3. Composition/information on ingredients

#### Substances

No available data for this section.

#### Mixtures

<table>
<thead>
<tr>
<th>Identifiers</th>
<th>Ingredients</th>
<th>Percentage</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>111-30-8</td>
<td>Glutaraldehyde</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

### Section 4. First-Aid Measures

#### Description of First Aid Measures

**In the event of splashes or contact with eyes**
Immediately flush with clean, low-pressure water for several minutes. Hold eyelids open to ensure adequate flushing. Remove the contact lenses if worn and easy to do that. Continue rinsing. Immediately seek medical attention.

**In the event of splashes or contact with skin**
Wash contaminated areas thoroughly with water. If redness or other symptoms occur, seek medical advice / attention.

**In the event of ingestion**
DO NOT INDUCE VOMITING. Rinse the mouth with water. If the exposed person is drowsy or unconscious, do not give anything by mouth. If after ingestion you feel unwell, seek medical advice. In case of ingestion of large quantities immediately take the exposed person to hospital.

**In the event of inhalation**

If after inhalation you feel unwell, seek medical advice. If spontaneous vomiting occurs, lean the exposed person forward to reduce the risk of aspiration. If the exposed person is not breathing, provide artificial respiration. Loosen tight clothing such as a collar, tie, belt, or waistband. Remove person to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if symptoms occur.

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

No available data for this section.

**Indication of any immediate medical attention and special treatment needed**

No available data for this section.

### Section 5. Firefighting Measures

**Extinguishing media**

**Suitable Extinguishing Media**

*The suggested appropriate media:* Alcohol-type or universal-type foams. Carbon dioxide. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

The product is not flammable or combustible.

**Unsuitable Extinguishing Media**

High power water jets.

**Special hazards arising from the substance or mixture**

**Specific Hazards Arising from Combustion of Products**

*Fire / decomposition hazards:* Gas, vapors, or dust are irritating to skin and eyes. Gas, vapors, or dust can cause respiratory allergic reactions. Gas, vapors, or dust can damage eyes. Gas, vapors, or dust may cause respiratory irritation. Gas, vapors, or dust may trigger allergic skin reactions.

**Combustion Products**

Carbon dioxide (CO₂). Carbon monoxide (CO).

**Advice for firefighters**

**Protective Measures for Fire-Fighting**

Wear protective gloves, clothing, and protective goggles to prevent contact with skin and eyes. Wear self-contained breathing apparatus.

**Special Protective Actions for Fire-Fighters**

No available data for this section.

**Other Information for Fire Fighters**

No available data for this section.

### Section 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**

Ventilate area of leak or spill. Wear protective gloves, clothing, and protective goggles to prevent contact with skin and eyes.

**Environmental precautions**
Dispose of the material in accordance with government regulations. Do not discharge into drains or any body of water (rivers, streams, ponds, lakes, etc).

**Methods and material for containment and cleaning up**

Pick up and place in a suitable container for reclamation or disposal. Ensure cleanup is conducted by trained personnel only. Move containers from spill area if there is no risk. Stop leak if safe to do so. Turn leaking containers leak-side up to prevent the escape of liquid. Absorb with earth, sand, or other non-combustible material.

**Reference to other sections**

No available data for this section.

### Section 7. Handling and Storage

**Precautions for safe handling**

Avoid direct contact with the substance (solid / liquid / vapor). Check container for defect or leakage before handling. Do not eat, drink or smoke during handling. Do not handle in a confined space. Ensure there is sufficient ventilation of the area. Handle in accordance with all current regulations and standards. Handle in accordance with good industrial hygiene and safety practice. Keep container tightly closed. Protect against physical damage. Wash any exposed area of body thoroughly after handling. Wash Hands thoroughly after handling. Wear protective gloves, clothing, and protective goggles to prevent contact with skin and eyes.

**Conditions for safe storage, including any incompatibilities**

**Conditions for Safe Storage**

*Keep away from:* Direct sunlight. Heat.

Keep container closed when not in use. Store locked up. Store only in well-ventilated areas.

**Suitable Packaging**

No available data for this section.

**Incompatible Materials**

Not specified.

**Specific end use(s)**

No available data for this section.

### Section 8. Exposure Controls / Personal Protection

**Control parameters**

**Control Parameters / Limits for Product**

No available data for this section.

**Control Parameters / Limits for Component**

<table>
<thead>
<tr>
<th>Substance</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glutaraldehyde</td>
<td>0.2 mg/m³, PEL Ceiling.</td>
<td>0.2 ppm, REL.</td>
<td>0.05 ppm, TLV.</td>
</tr>
<tr>
<td></td>
<td>0.05 ppm, PEL.</td>
<td>0.8 mg/m³, REL Ceiling.</td>
<td>0.2 mg/m³, TLV Ceiling.</td>
</tr>
</tbody>
</table>

**Exposure controls**

**Engineering Measures**
Eye wash stations are recommended in areas where product is stored in large quantities. For small volume use, ensure there is a sink nearby which employees can use to flush their eyes appropriately in the event of accidental eye exposure. Provide adequate general and local exhaust ventilation.

**Respiratory Protection**
Self-contained breathing apparatus must be available for people working in areas with large quantities of this product.

**Eye/Face Protection**
Wear safety goggles.

**Skin and Body Protection**
Wear appropriate chemical resistant clothing.

**Hand Protection**
Wear appropriate chemical resistant gloves.

**Hygiene Measures**
No available data for this section.

**Environmental exposure controls**
No available data for this section.

### Section 9. Physical and chemical properties

#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>Clear liquid with yellow tint</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Characteristic lemon</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>6.5</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>Lesser than 0°C / 32°F</td>
</tr>
<tr>
<td><strong>Boiling point</strong></td>
<td>Greater than 100°C / 212°F</td>
</tr>
<tr>
<td><strong>Flash Point</strong></td>
<td>Greater than 93°C / 199.4°F</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>0.93 multiplier w/r/t butyl acetate</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td>Non flammable</td>
</tr>
<tr>
<td><strong>Flammability limit</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>17 mmHg</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>0.001 g/ml</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>1.062 multiplier w/r/t water @20°C</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Solubility in other solvents</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Freezing point</strong></td>
<td>Not available</td>
</tr>
</tbody>
</table>
Percent volatiles

Evaporation rate w/r/t ether

Evaporation rate w/r/t butyl acetate

Relative density w/r/t water

Relative density w/r/t air

90 %vol

Not available

0.93

1.062

Not available

Other Information

No available data for this section.

Section 10. Chemical Stability & Reactivity Information

Reactivity

Reactivity: The product is known to be non-reactive in ambient conditions.

Chemical Stability

This product is stable under ambient condition.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur under normal conditions. May decompose in very high temperatures and produce CO2 and CO gas.

Conditions to Avoid


Incompatible Materials


Hazardous Decomposition Products

Decomposition will Result in Production of: Carbon dioxide (CO₂). Carbon monoxide (CO).

Section 11. Toxicological Information

Information on toxicological effects

Toxicological Information for Product

No available data for this section.

Toxicological Information for Component

Glutaraldehyde

LD 50 Dermal > 2000 mg/kg, Rat.

LC 50 Inhalation 96 mg/m³, Rat.

LD 50 Oral 154 mg/kg, Rat.

Irritation/Corrosion Information for Product

No available data for this section.

Irritation/Corrosion Information for Component

Glutaraldehyde

Eyes: Severe irritant, Rabbit.

Skin: Severe irritant, Rabbit.
Section 12. Ecological Information

Toxicity

Ecotoxicity Values for Product

Ecotoxicity: No ecotoxicity values specified for product.

Ecotoxicity Values for Component

Glutaraldehyde

LC 50 Fish: 23.9 mg/kg (96h), Salmo gairdneri.
LD 50 Fish: 17 mg/l (24h), Salmogairdneri.

Persistence and degradability

No available data for this section.

Bioaccumulative potential

Bioaccumulative Potential for Product

No available data for this section.

Bioaccumulative Potential for Component

No available data for this section.

Mobility in soil

No available data for this section.

Results of PBT and vPvB assessment

No available data for this section.

Other adverse effects

No available data for this section.

Section 13. Disposal Considerations

Waste treatment methods

Waste Disposal Regulation(s) / Operation

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of national pollutant discharge elimination systems. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. Users need to pay attention to the possible existence of regional or national regulations regarding disposal.

Waste Treatment Methods

No available data for this section.

Section 14. Transportation Information

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>DOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
</tr>
<tr>
<td>Packing group</td>
<td>ADR</td>
<td>IMDG</td>
<td>IATA</td>
<td>DOT</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>------------------------------------------</td>
<td>-------------------------------------------</td>
<td>-------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
<td>No available data for this section.</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of Marpol and the IBC Code</td>
<td>No available data for this section.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>This product is not regulated for transport</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section 15. Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Safety, Health and Environmental Regulations for Product**

**Canada:** DSL: Present.

**Safety, Health and Environmental Regulations for Component**

No available data for this section.

**Chemical safety assessment**

No available data for this section.

### Section 16. Other Information

**Disclaimer**

The above information is accurate to the best of our knowledge, however since data, safety standards and government regulations change, and the conditions of handling and use or misuse are beyond our control, manufacturer and distributor, above mentioned, make no warranty either expressed or implied with respect to the completeness or continuing accuracy of information herein and disclaims all liability for reliance thereon. Do not use ingredient information and / or ingredient percentages in this SDS as a product specification.

**Glossary**

**ACGIH:** American Conference of Governmental Industrial Hygienists.

**DOT:** Department of Transportation, USA.

**EPA:** Environmental Protection Agency.

**LC 50:** Lethal Concentration which is lethal to 50% of the population.

**LD 50:** Lethal Dose which is lethal to 50% of the population.

**OSHA:** US Occupational Safety and Health Administration, US Department of Labor.

**PEL:** Permissible exposure limit. An exposure limit that is published and enforced by OSHA as a legal standard.

**TLV:** Threshold Limit Value.

**TWA:** Time Weighted Average.

Prepared by: CompleteSDS

Approved by: N.A.K.P. Foto Inc.

Date Created: March 31, 2023