

SAFETY DATA SHEET

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

Product identifier

Product Name: BM-Endo Fixer

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

Recommended Use(s): Ready to use x-ray fixer solution

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
Tel: (514) 932-8057; Fax: (514) 932-8057
email: paul@nakpfoto.com
Url: www.nakpfoto.com

Distributor:

B.M. Group Inc.
5890 Monkland Avenue, Suite 16
Montreal Quebec H4A 1G2 Canada
Tel: (514) 738-5200; Fax: (514) 738-2290
Toll free: 1-800-561-9818
email: info@bmcanada.ca
http://www.bmcanada.ca

Emergency telephone number

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

Notes:

While this photographic grade solution is generally safe and high- performing 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

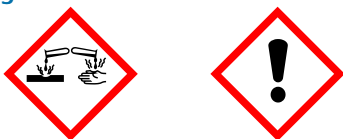
Classification of the substance or mixture

GHS Classification for mixture:

Hazardous to the aquatic environment, long-term (Chronic) - Category 3
Hazardous to the aquatic environment, short-term (Acute) - Category 3
Serious eye damage - Category 1
Acute Toxicity Oral - Category 4

Label elements

Pictograms:



Signal Words:

Danger

Hazard Statements:

Harmful if swallowed.
 Causes serious eye damage.
 Harmful to aquatic life.
 Harmful to aquatic life with long lasting effects.

Precautionary Statements:

Prevention

Wash hands thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Avoid release to the environment.
 Wear protective gloves, eye protection.

Response

Immediately call a doctor.
 IF SWALLOWED: Call a POISON CENTER, doctor if you feel unwell.
 Rinse mouth.
 IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing.
 IF IN EYES: Rinse cautiously with water for several minutes.

Disposal

Dispose of contents as per local regulations. Dispose of container as per local regulations.

Section 3. Composition/information on ingredients

Mixtures

Identifiers	Ingredients	Percentage	Classification
1762-95-4	Ammonium Thiocyanate	30%	
7783-18-8	Ammonium Thiosulfate	15%	
7361-90-5	Sodium Bisulfite	5%	

Section 4. First-Aid Measures

Description of First Aid Measures

In the event of splashes or contact with eyes

Hold eyelids open to ensure adequate flushing. Immediately flush with clean, low-pressure water for several minutes. Immediately seek medical attention. Remove the contact lenses if worn and easy to do that.

In the event of splashes or contact with skin

Wash contaminated areas thoroughly with water.

In the event of ingestion

In case of ingestion of large quantities immediately take the exposed person to hospital. Rinse the mouth with water. Show safety data sheet to the doctor in attendance. Call a poison center, a doctor, or medical service. DO NOT INDUCE VOMITING.

In the event of inhalation

If after inhalation you feel unwell, seek medical advice. Remove person to fresh air and keep at rest in a position comfortable for breathing.

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.

The product is not flammable or combustible.

Unsuitable Extinguishing Media

No available data for this section.

Special hazards arising from the substance or mixture

Specific Hazards Arising from Combustion of Products

Fire / decomposition hazards: Evacuate the area. Vapors or dust are corrosive to skin and eye. Very toxic gases.

Combustion Products

Sulfur oxides. Ammonia (NH₃). Cyanides (CNs). Hydrogen sulfide (H₂S).

Advice for firefighters

Protective Measures for Fire-Fighting

Wear protective goggles to prevent contact with 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 spill area. Wear appropriate chemical resistant gloves. Wear protective goggles to prevent contact with eyes.

Environmental precautions

Prevent contamination of soil and surface water.

Methods and material for containment and cleaning up

Collect and transfer to a closable container without splash or generating dust / mist for disposal by an appropriate method.

Reference to other sections

No available data for this section.

Section 7. Handling and Storage

Precautions for safe handling

Protect against physical damage. Eye wash stations and showers 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 and skin appropriately in the event of accidental exposure. Keep container tightly closed.

Conditions for safe storage, including any incompatibilities

Conditions for Safe Storage

Keep away from: Direct sunlight.

Keep container tightly closed. Store in a cool and dry area. Eye wash stations should be easily accessible to areas where product is stored, handled, or used.

Suitable Packaging

Store in original container / packaging.

Incompatible Materials

No available data for this section.

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

Ammonium Thiosulfate

OSHA PEL 15 mg/m³, Mist.
5 mg/m³, respirable particulate.

ACGIH (TLV) Not established.

Ammonium Thiocyanate

ACGIH
TLV 4.7 ppm

NIOSH

TWA 4.7 ppm

OSHA

PEL 10 ppm 8h

Sodium Bisulfite

OSHA
TWA 5 mg/m³ 8 hour, TWA

TWA 5 mg/m³ Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants (TWAEV)
5 mg/m³ OEL, Canada, Alberta
5 mg/m³ OEL, Canada, Ontario (TWAEV)
5 mg/m³ OEL, Canada, British Columbia

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 and skin appropriately in the event of accidental exposure.

Respiratory Protection

Certified self-contained breathing apparatus must be available in case of emergency. Respiratory protection is required if the concentrations exceed the TLV.

Eye/Face Protection

Wear safety goggles. In industrial plants or large production areas, ensure eye-wash stations are available. For use in small settings or offices, a procedure and training for washing eyes in a sink is recommended.

Skin and Body Protection

Wear appropriate chemical resistant clothing.

Hand Protection

Wear impermeable gloves. Ensure gloves are certified.

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

Physical State	Liquid
Appearance	Clear
Odor	Odorless
Odor threshold	Not available
pH	Not available
Melting point	Not available
Boiling point	100°C / 212°F
Flash Point	Not available
Evaporation rate	Not available
Flammability	Non-flammable
Flammability limit	Not available
Vapor pressure	18 mmHg Conditions of Measurement: Temperature: 25°C / 77°F Pressure: 101.3kPa
Vapor density	0.6 g/cm ³
Relative density	1.127 multiplier w/r/t water
Solubility	0.6 g/l
Solubility in other solvents	Not available
Partition coefficient	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Freezing point	Not available

Other Information

No available data for this section.

Section 10. Chemical Stability & Reactivity Information

Reactivity

Chemical stability: This product is stable under ambient condition.

Chemical Stability

No available data for this section.

Possibility of Hazardous Reactions

The product decomposes in high temperatures and produces toxic gas or vapor.

Conditions to Avoid

Keep away from: Direct sunlight. Fire. Heat.

Incompatible Materials

Avoid contact or storage with: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products

Decomposition will Result in Production of: Carbon dioxide (CO₂). Carbon monoxide (CO). Cyanides (CNs). Oxides of nitrogen (NO_x).

Section 11. Toxicological Information

Information on toxicological effects

Toxicological Information for Product

No available data for this section.

Toxicological Information for Component

Ammonium Thiosulfate

LC50 Inhalation - Not Specified	Greater than 2.26 g/m ³ (4h), Rat. Greater than 1.8 g/m ³ (4h), Mouse.
LD50 Oral	2890 mg/kg Rat. 21000 mg/kg Mouse. 1098 mg/kg Guinea Pig.

Ammonium Thiocyanate

LD50 Oral	750 mg/kg Rat.
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Sodium Bisulfite

LD50 Oral	2000 mg/kg Rat.
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Irritation/Corrosion Information for Product

No available data for this section.

Irritation/Corrosion Information for Component

Sodium Bisulfite

Mucous membrane: Irritant.
Respiratory: Acute Exposure - Mild Effect.
Eyes: Irritant. Acute Exposure - Mild Effect.
Skin: Irritant.

Section 12. Ecological Information

Toxicity

Ecotoxicity Values for Product

No available data for this section.

Ecotoxicity Values for Component

No available data for this section.

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

Disposal, treatment or recycling of industrial waste must comply with applicable regulations to preserve the environment.

Waste Treatment Methods

No available data for this section.

Section 14. Transportation Information

	ADR	IMDG	IATA	DOT
UN number	No available data for this section.	No available data for this section.	No available data for this section.	No available data for this section.
UN proper shipping name	No available data for this section.	No available data for this section.	No available data for this section.	No available data for this section.
Transport hazard class(es)	No available data for this section.	No available data for this section.	No available data for this section.	No available data for this section.
Packing group	No available data for this section.	No available data for this section.	No available data for this section.	No available data for this section.
Environmental hazards	No available data for this section.	No available data for this section.	No available data for this section.	No available data for this section.
Special precautions for user	No available data for this section.			
Transport in bulk according to Annex II of Marpol and the IBC Code	No available data for this section.			
Other	No available data for this section.			

Section 15. Regulatory Information

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

Safety, Health and Environmental Regulations for Product

No available data for this section.

Safety, Health and Environmental Regulations for Component

Sodium Bisulfite

RCRA Hazardous Waste:	Not present.
EPCRA 313 Toxic Chemical (40 CFR 372.65):	Not present.
TSCA:	Present.
OSHA Regulated substance (29 CFR 1910):	Not present.
SARA Extremely hazardous substance:	Not present.
SARA 311/312 Category:	Acute (immediate) Health Hazard.
Air (29 CFR 1910.1000, table Z-1, Z-1-A):	Not present.
CERCLA Hazardous substance:	Not present.
CERCLA reportable quantity:	5000 lbs 100% dry basis 1180 gallons liquid sodium bisulfite (38% basis).

Ammonium Thiocyanate

Section 302 Extremely Hazardous Substances:	Not applicable.
TSCA:	Present.
OSHA Regulated substance (29 CFR 1910):	Present.
SARA 313 Toxic Chemicals:	Not applicable.
SARA 311/312 Category:	No.

Ammonium Thiosulfate

DSL (Canada):	Present.
	Record# 8479.
TSCA:	Present.
OSHA:	This product meets the definition of a hazardous material under criteria of the Federal OSHA Hazard Communication Standard (29CFR 1910.1200).

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.

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

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

N/A: Not applicable.

N/AV: Not available.

N/D: Not determined.

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

PEL: Permissible Exposure Limit.

TLV: Threshold Limit Value.

TWA: Time Weighted Average.

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