



SAFETY DATA SHEET
AZ NMP RINSE

Substance No.: BBG70S9
Version 3.1

Revision Date 04/03/2015
Print Date 06/16/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : AZ NMP RINSE

Product Use Description : Intermediate for electronic industry

Company : EMD Performance Materials Corp.
An affiliate of Merck KGaA, Darmstadt Germany
One International Plaza, Suite 300
Philadelphia, PA 19113

Telephone : 1-888-367-3275

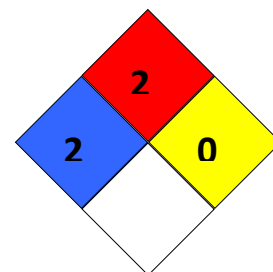
Emergency telephone number : 1-800-424-9300 (CHEMTREC)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

HMIS Classification : Health hazard: 2*
Flammability: 2
Reactivity: 0
PPE:X

NFPA Classification : Health hazard: 2
Fire Hazard: 2
Reactivity Hazard: 0
Special Hazards: NONE



GHS Classification

Hazard category, Hazard class : Skin irritation, Category 2

Hazard category, Hazard class : Eye irritation, Category 2A

Hazard category, Hazard class : Specific target organ toxicity - single exposure, Category 3

Hazard category, Hazard class : Reproductive toxicity, Sub-category 1B




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GHS-Labeling

- Symbol(s) : 
- Signal word : Danger
- Hazard statements : Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May damage fertility or the unborn child.
- Precautionary statements : **Prevention:**
Do not handle until all safety precautions have been read and understood.
Keep only in original container.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Wear protective gloves/ eye protection/ face protection.
Response:
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or if you feel unwell:
Get medical advice/ attention.
Storage:
Store in a well-ventilated place. Keep cool.
Store in a closed container.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Component	CAS-No.	Weight percent
1-Methyl-2-pyrrolidone	872-50-4	100



SAFETY DATA SHEET

AZ NMP RINSE

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SECTION 4. FIRST AID MEASURES

First aid procedures

- Inhalation : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
- Skin contact : Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
- Eye contact : Remove contact lenses. Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
- Ingestion : Keep respiratory tract clear. If conscious, drink plenty of water. Never give anything by mouth to an unconscious person. Obtain medical attention.

SECTION 5. FIREFIGHTING MEASURES

Flammable properties

- Flash point : 196 - 199 °F (91 - 93 °C)
Method: closed cup

Fire fighting

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Further information : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Cool containers/tanks with water spray.

Protective equipment and precautions for firefighters

- Specific hazards during firefighting : Thermal decomposition may generate carbon dioxide, carbon monoxide, and oxides of nitrogen.



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AZ NMP RINSE

Substance No.: BBG70S9
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SECTION 6. ACCIDENTAL RELEASE MEASURES

- Environmental precautions : Do not allow entry to drains, water courses or soil. Prevent spreading by use of suitable barriers. Local authorities should be advised if significant spillages cannot be contained.
- Methods for containment / Methods for cleaning up : Wearing appropriate personal protective equipment, contain spill, ventilate area of spill or leak, remove all sparking devices or ignition sources, collect onto inert absorbent, and place in a suitable container.

SECTION 7. HANDLING AND STORAGE

Handling

- Handling : Do not breathe vapours or spray mist. Do not get on skin or clothing. For personal protection see section 8. Use only in area provided with appropriate exhaust ventilation.
- Advice on protection against fire and explosion : Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge. Avoid shock and friction.

Storage

- Further information on storage conditions : Keep container tightly closed in a dry and well-ventilated place. May liberate combustible solvent vapors. Store at appropriate temperature. See label for details.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Components with workplace control parameters

Components	CAS-No.	Control parameters	Basis
1-Methyl-2-pyrrolidone	872-50-4	TWA: 10 ppm	US WEEL

Engineering measures

- Engineering measures : Handle only in a place equipped with local exhaust (or other appropriate exhaust).



SAFETY DATA SHEET

AZ NMP RINSE

Substance No.: BBG70S9
Version 3.1

Revision Date 04/03/2015
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Personal protective equipment

- Eye protection : Safety eyewear to protect against splashes.
- Hand protection : Solvent-resistant gloves
- Skin and body protection : Clothing suitable to prevent skin contact.
- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
Respirator with filter for organic vapour
Use NIOSH approved respiratory protection.
- Hygiene measures : Observe the usual precautions when handling chemicals.
-

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Form : Liquid
- Color : Clear, colorless to pale yellow
- Odor : Slight amine odor.

Safety data

- Flash point : 196 - 199 °F (91 - 93 °C)
Method: closed cup
- Starts to boil : 396 °F (202 °C)
- Vapour pressure : 0.24 Torr
at 68 °F (20 °C)
- Density : 1.027 g/cm³
- Water solubility : soluble
- VOC : 1,027 g/l (Calculated value)
- Loss on drying : > 98 %



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SECTION 10. STABILITY AND REACTIVITY

- Conditions to avoid : Avoid contact with oxidizing agents.
Avoid contact with strong acids.
- Hazardous decomposition products : Thermal decomposition may generate carbon dioxide, carbon monoxide, and oxides of nitrogen.
- Hazardous reactions : None reasonably foreseeable.
- Chemical stability : Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Data for AZ NMP RINSE

- Further information : No toxicological testing was carried out on the preparation.

Data for N-Methyl-2-Pyrrolidone (872-50-4)

- Acute oral toxicity : LD50 Oral: 3,605 mg/kg
Species: rat
Source : Supplier MSDS
- Acute inhalation toxicity : LC50: > 5.1 mg/l
Exposure time: 4 h
Species: rat
Source : Supplier MSDS
- Acute dermal toxicity : LD50 Dermal: 5,000 mg/kg
Species: rat
Source : Supplier MSDS
- Skin irritation : Species: rabbit
Result: Skin irritation
Method: Draize Test
Source : Supplier MSDS
- Eye irritation : Species: rabbit
Result: Eye irritation
Method: Draize Test
Source : Supplier MSDS



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SECTION 12. ECOLOGICAL INFORMATION

Data for AZ NMP RINSE

Additional ecological information : No ecological testing was carried out on the preparation.

Data for N-Methyl-2-Pyrrolidone (872-50-4)

Ecotoxicity effects

Toxicity to fish : LC50: > 500 mg/l Exposure time: 96 h
Species: Salmo gairdneri
static Source : Supplier MSDS

Toxicity to daphnia and other aquatic invertebrates : EC50: > 1,000 mg/l
Exposure time: 24 h
Species: Daphnia magna
Method: DIN 38412 T.11
Source : Supplier MSDS

Toxicity to algae : EC50: > 500 mg/l
Exposure time: 72 h
Species: Green algae
Method: DIN 38412 T.9
Source : Supplier MSDS

Toxicity to bacteria : EC50: > 600 mg/l
Exposure time: 0.5 h
Species: activated sludge, industrial
Method: ISO 8192

Elimination information (persistence and degradability)

Biodegradability : aerobic BOD in % of theoretical OD
Result: Readily biodegradable (according to OECD criteria)
73 %
Method: OECD 301C; ISO 9408; 92/69/EEC, C.4-F
Source : Supplier MSDS



SAFETY DATA SHEET
AZ NMP RINSE

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Revision Date 04/03/2015
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SECTION 13. DISPOSAL CONSIDERATIONS

- Further information : Dispose of contents/ container to an approved incineration plant.
Dispose of in accordance with local regulations.
- Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste
- RCRA hazardous waste : RCRA number: NONE
No -- Not as sold.

SECTION 14. TRANSPORT INFORMATION

DOT
Not restricted

TDG
Not restricted

IATA
Not restricted

IMDG
Not restricted

SECTION 15. REGULATORY INFORMATION

Notification status

- TSCA** : All components of this product are listed on the TSCA Inventory.
- DSL** : All components of this product are on the Canadian DSL.
- WHMIS Classification** : B3: Combustible Liquid
D2B: Toxic Material Causing Other Toxic Effects
- Canadian PBT Chemicals** : This product does not contain any components on the DSL that are classified as Persistent, Bioaccumulative and Toxic (PBT) under CEPA.
- CERCLA Reportable Quantity** :
This material does not contain any components with a CERCLA RQ.



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Carcinogenicity

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302 Reportable Quantity : This material does not contain any components with a SARA 302 RQ.

SARA 304 Extremely Hazardous Substances : This material does not contain any components with a section 304 EHS RQ.

SARA 313: The following components are subject to reporting levels established by SARA Title III, Section 313:

SARA 313 Components : 1-Methyl-2-pyrrolidone 872-50-4

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

US. Clean Air Act - Hazardous Air Pollutants (HAP)

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

US. Clean Air Act Section 112(r); Regulated toxic and flammable substances for Accidental Release Prevention - 40 CFR 68.130 (subpart F)

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

US. Clean Air Act Section 111 SOCM Intermediate or Final Volatile Organic Compounds (VOC) - 40 CFR part 60.489

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).



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Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know Components	: 1-Methyl-2-pyrrolidone	872-50-4
Pennsylvania Right To Know Components	: 1-Methyl-2-pyrrolidone	872-50-4
New Jersey Right To Know Components	: 1-Methyl-2-pyrrolidone	872-50-4
California Prop. 65 Components	: WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.	
	1-Methyl-2-pyrrolidone	872-50-4

SECTION 16. OTHER INFORMATION

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. For any sub-heading within any section not addressed herein, no relevant information is determined or applicable. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications.

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