

Material Safety Data Sheet

SECTION 1 - PRODUCT IDENTIFICATION

Product Name N-Methylmesoporphyrin IX dimethyl ester
 Alternate Name BB 0280056
 Supplier Info AAPharmaSyn, LLC
 3915 Research Park Drive, Suite A1
 Ann Arbor, MI 48108

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENT

Substance Name N-Methylmesoporphyrin IX dimethyl ester
 CAS # None
 Formula $C_{37}H_{44}N_4O_4$
 Synonyms None
 RTECS Number Not assigned

SECTION 3 – HAZARDS IDENTIFICATION

Caution: the physical, chemical, and toxicological properties of this molecule have not been thoroughly investigated.

Emergency Overview

OSHA Hazards: No known OSHA hazards

GHS Classification: Acute toxicity, Oral (Category 4), H302; Acute toxicity, Inhalation (Category 4), H332; Acute toxicity, Dermal (Category 4), H312

GHS Label elements, including precautionary statements:



Signal word Warning

Hazard statement(s)

H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing.

P301/P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P330	Rinse mouth.
P501	Dispose of contents/ container to an approved waste disposal plant.

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. 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.

Indication of any immediate medical attention and special treatment needed: No data available

SECTION 5 – FIRE FIGHTING MEASURES

Flash point	Unknown
Autoignition temperature	Unknown
Flammability	Unknown
Extinguishing media	Water spray, carbon dioxide, dry chemical powder, or appropriate foam.
Special hazards	Carbon oxides, nitrogen oxides (NOx)
Firefighting	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Emits toxic fumes under fire conditions.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precaution measures	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
Methods for cleaning	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7 – HANDLING AND STORAGE

Handling	Avoid inhalation. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Avoid formation of dust
----------	---

and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Storage Keep tightly closed. Store under frozen conditions. Allow to warm to ambient temperature before opening container.

SECTION 8 – EXPOSURE CONTROLS / PE

Engineering controls	Safety shower and eye bath. Mechanical exhaust required.
Personal protective equipment	When handling large quantities use government-approved respirator, compatible chemical-resistant gloves, chemical safety goggles. When handling smaller quantities use dust-mask, compatible chemical-resistant gloves, chemical safety goggles, and lab coat.
General hygiene measures	Wash thoroughly after handling. Wash contaminated clothing before reuse.

SECTION 9 – PHYSICAL / CHEMICAL PROPERTIES

Appearance	Off white solid
Odor	None
Formula weight	608.79 g/mol
Melting point	Not determined
Water solubility	Not determined

SECTION 10 – STABILITY AND REACTIVITY

Stability	Stable under storage conditions
Conditions to avoid	Store solid away from heat or humidity
Hazardous decomposition products	Carbon oxides, nitrogen oxides (NO _x)

SECTION 11 – TOXICOLOGICAL INFORMATION

Caution: the physical, chemical, and toxicological properties of this molecule have not been thoroughly investigated.

Acute toxicity

Oral LD50
no data available
Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Mild eye irritant

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

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.

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.

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.

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.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: N/A

Mobility	Not defined
Degradability	Not defined
Accumulation	Not defined
Ecotoxicity	Not defined

SECTION 13 – DISPOSAL CONSIDERATIONS

Product	Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	Dispose of as unused product.

SECTION 14 – TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15 – REGULATORY INFORMATION

OSHA Hazards

No known OSHA hazards

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

N-Methylmesoporphyrin IX dimethyl ester
CAS-No. N/A.

Revision Date: April 27, 2022

New Jersey Right To Know Components

N-Methylmesoporphyrin IX dimethyl ester
CAS-No. N/A.

Revision Date: April 27, 2022

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The material published in this Material Safety Data Sheet has been compiled from our experience and data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. AAPharmaSyn makes no warranty or representation about the accuracy or completeness nor fitness for purpose of the information contained herein.

Last Update: April 27, 2022