

Section 1: Product Identification

Chemical Name: Protoporphyrin IX

CAS Number: 553-12-8

REACH Number: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

Details of the supplier: PorphyChem SAS

390 Rue Charles de Freycinet 21600 Longvic France Phone: +33 (0)3 80 67 33 30 Email: contact@porphychem.com

This product is being sent to you as Research and Development product as defined by the Toxic Substances Act (TSCA) of 1976. Due to TSCA's R&D exemption, this product is not listed on the U.S. EPA's Toxic Substances Control Act (TSCA's) inventory. As a TSCA-exempt R&D substance, this product must be used by or directly under the supervision of a technically qualified individual(s) as defined by TSCA. This product may not be used for commercial purposes or in formulations used for commercial purposes.

Section 2: Hazards Identification

Classification of the substance or mixture: H_3	315 Skir	n Irrit. 2	R38
H3	319 Eye	e Irrit. 2	R36
H3	335 STC	DT SE 3a 🛛 🛛	R37

Label elements:



Signal word: Warning

Hazard Statements:

H315: Causes skin irritation H319: Causes serious eye irritation H335: May cause respiratory irritation

Precautionary Phrases:

P264: Wash face, hands and any exposed skin thoroughly after handling
P304 + P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P312: Call a POISON CENTER or doctor/physician if you feel unwell
P280: Wear protective gloves/protective clothing/eye protection/face protection
P332 + P313: If skin irritation occurs: Get medical advice/attention
P337 + P313: If eye irritation persists: Get medical advice/attention

Other Hazards: non

Section 3: Composition Information on Ingredients

Usual Chemical Name: Protoporphyrin IX

Chemical Formula: C₃₄H₃₄N₄O₄

Molecular Weight: 562,67g/mol

Concentration: ≤ 100%

Note:

Section 4: First Aid Measures

Inhalation: If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin: In case of contact, wash immediately with soap and plenty of water. Consult a physician.

Eyes: In case of contact, rinse immediately with plenty of water for at least 15 minutes and consult a physician.

Ingestion: If swallowed, rinse mouth with water. Consult a physician. Never give anything by mouth to an unconscious person.



Material Safety Data Sheet

Section 5: Fire Fighting Measures

Suitable extinguishing media: Use water spray, dry chemical powder, carbon dioxide or appropriate foam.

Special hazards from the substance or mixture: Carbon oxides, nitrogen oxides.

Precautions for fire-fighters: Wear self-contained breathing apparatus for fire fighting if necessary.

Section 6: Accidental Release Measures

Protective equipment: Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

- Cleaning up: Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.
- Environmental precautions: Do not let product enter drains.

Section 7: Handling and Storage

Precautionfor safe handling: Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Avoid formation of dust and aerosols.

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

Special requirements:

Section 8: Exposure Controls, Personnal Protection

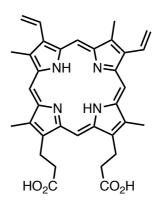
Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands with soap before breaks and at the end of workday.

- **Eye protection:** Wear chemical safety goggles. Use equipment for eye protection tested and approved under appropriate government standards.
- Skin protection: Wear chemical safety gloves. Gloves must be inspected prior to use. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- **Body protection:** Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Ventilation: Handel in an efficient fume hood

Section 9: Physical and Chemical Properties

Appearance: Purple solid Global Chemical Formula: C₃₄H₃₄N₄O₄ Molecular Weight: 562,67g/mol Melting Point: > 300°C Boiling Point: N/A Flammability: N/A Flash Point: Autoignition Temperature: N/A Explosion Limits: N/A





Material Safety Data Sheet

Solubility in acetone	unknown	ether	unknown
acetonitrile	unknown	heptane	unknown
chloroforme	unknown	methanol	unknown
dichloro-1,2-ethane	unknown	pentane	unknown
dichloromethane	unknown	tetrahydrofuranne	unknown
DMF	soluble	toluene	unknown
ethanol	unknown	water	not soluble

Section 10: Stability and Reactivity

Chemical stability: The product is stable.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Carbon oxides, nitrogen oxides.

Section 11: Toxicological Information

RTECS: No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Acute toxicity: LD50: N/A

LC50: N/A Chronic toxicity: Repeated or prolonged exposure is not known to aggravate medical condition. Other Toxic Effects on Humans: N/A No specific information is available in our database regarding the other toxic effects of this material for humans. Carcinogenic effects: N/A Mutagenic effects: N/A Reproduction toxicity: N/A Teratogenic effects: N/A

Section 12: Ecological Information

Ecotoxicity: No data available. ECOTOX Chemical Index: No products were found. Toxicity of the Products of Biodegradation: The products of degradation are more toxic than the product itself.

Section 13: Disposal Considerations

Substance disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulation.

Section 14: Transport Information

Transport Information: Non-hazardous for road transport.

Air Transport Information: Non-hazardous for air transport

Sea Transport Information: Non-hazardous for sea transport.



Material Safety Data Sheet

Section 15: Regulatory Information

Classification and Labelling According to EU and US Directives.

EU Additional Classification: Symbol of danger: Xi Indication of danger Irritant H315 / H319 / H335 Risk statements: Irritating to eyes, respiratory system and skin. P234 / P304 + P340 / P312 / P280 / P332 + P313 / P337 + P313 Safety statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

US Classification and Label Text: Indication of danger: Irritant Risk statements: Irritating to eyes, respiratory system and skin. Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

United States Regulatory Information: TSCA: No products were found. SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: No products were found. SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found. SARA 313 toxic chemical notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.

Canada Regulatory Information: WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and MSDS contains all the information required by the CPR. DSL: No NDSL: No

Section 16: Other Information

Disclaimer: For R&D use only. Not for drug, household or other uses.

Warranty: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is base on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PorphyChem shall not be held liable for any damage resulting from handling or from contact with the above product. 18/04/2023