

NovoPro Bioscience Inc, Songjiang District, Shanghai 201619, China

Revision Date:15-Jan-2020

Section 1-Identification of Substance/ Identification of Company

Product name Protamine Product Cat. No. 301347

Chemical Formula: $C_{170}H_{321}N_{89}O_{36}S$

Supplier: NovoPro Bioscience Inc.

Phone: +86-21-61941042 Fax: 86-216-194-1042

Section 2-Composition / Information on Ingredients

Substance/Preparation: Substance
Ingredient Name Protamine
SARA 313 No

Section 3- Hazards Identification

Classification This substance/mixture is not considered hazardous by the

2012 OSHA Hazard Communication Standard (29 CFR

1910.1200)

GHS Label elements, including precautionary statements

Signal Word Not classified

Hazard statement(s) None. Precautionary Statement(s) None.

Supplementary Hazard Information May produce an allergic reaction

Hazards not otherwise classified Not applicable.

(HNOC)

For additional information on toxicity, please refer to Section 11.

Saction	1	Firet	Λiλ	1/1	easures
Section	4-	THISL.	AIII	IVI	easures.

Oral Exposure If swallowed, wash out mouth with water provided person

is conscious. Call a physician.

Inhalation Exposure If inhaled, remove to fresh air. If breathing becomes

difficult, call a physician.

Dermal Exposure In case of skin contact, flush with copious amounts of

water for at least 15 minutes. Remove contaminated

clothing and shoes. Call a physician.

Eye Exposure In case of contact with eyes, flush with copious amounts of

water for at least 15 minutes. Assure adequate flushing by

separating the eyelids with fingers. Call a physician.

Section 5- Fire Fighting Measures

Flash Point Not available
Autoignition Temp Not available
Flammability Not available

Extinguishing Media

Suitable Carbon dioxide, dry chemical powder, or appropriate foam.

Water spray

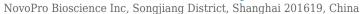
Fire Fighting

Protective Equipment Wear self-contained breathing apparatus and protective

clothing to prevent contact with skin and eyes.

Specific Hazard(s) Emits toxic fumes under fire conditions.







Section 6- Accidental Release Measures

Procedure to be Followed in Case of

Leak or Spill

Evacuate area

Procedure(s) of Personal Precaution(s) Wear respirator, chemical safety goggles, rubber boots,

and heavy rubber gloves

Methods for 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.

Mechanical exhaust required

Section 7-Handling and Storage

Handling

User Exposure Avoid inhalation. Avoid contact with eyes, skin, and

clothing. Avoid prolonged or repeated exposure.

Storage

Suitable Keep tightly closed

Storage at -20°C

Section 8-Exposure Controls/Personal Protection Equipment

Engineering Controls

Personal Protective equipment

Respiratory Use respirators and components tested and approved

under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired,

use type N95 (US) or type P1 (EN 143) respirator. Wear appropriate government approved respirator,

chemical-resistant gloves, safety goggles, other protective

clothing.

Not available

General Hygiene Measures Wash thoroughly after handling

Section 9- Physical and Chemical Properties

Appearance

Physical State Powder

Property

Hq

Other

Molecular Weight 4219.9

Not available BP/BP Range MP/MP Range Not available Freezing Point Not available Vapor Pressure Not available Vapor Density Not available Saturated Vapor Conc. Not available SG/Density Not available **Bulk Density** Not available Odor Threshold Not available Volatile% Not available

VOC ContentNot availableWater ContentNot availableSolvent ContentNot available

Evaporation Rate Not available Viscosity Not available

Surface Tension Not available

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Not available
Not available

Section 10- Stability and Reactivity

Stability

Stable Stable

Hazardous Decomposition Products

Hazardous Decomposition Products

Hazardous Polymerization Hazardous Polymerization

Nature of decomposition products not known.

Will not occur

Section 11- Toxicological Information

Route of Exposure

Skin Contact Avoid contact with skin.

Avoid contact with eyes. May cause slight irritation. Eve contact Inhalation Avoid breathing vapors or mists. May cause irritation of

respiratory tract.

Ingestion may cause gastrointestinal irritation, nausea, Ingestion

vomiting and diarrhea.

Conditions Aggravated by Exposure The toxicological properties have not been thoroughly

investigated.

This product is for experimental uses only. The product has not been completely analyzed and all of the hazards may not be known.

Section 12- Ecological Information

No data available.

Section 13- Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material. 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 regulations.

Section 14- Transport Information

DOT

Proper Shipping Name None

Non-Hazardous for Transport This substance is considered to be non-hazardous for

transport.

IATA

Non-Hazardous for Air Transport Non-hazardous for air transport





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Section 15- Regulatory Information

US Classification and Label Text

US Statements Caution: The chemical, physical, and toxicological properties

of this product have not been thoroughly investigated.

Exercise due care.

United States Regulatory information

SARA Listed

No

Canada Regulatory information

WHMIS Classification This product has been classified in accordance with the

hazard criteria of the CPR, and the MSDS contains all the

information required by the CPR.

DSL No NDSL No

Section 16- Other Information

NovoPro corporation MSDS is believed to be correct but only used as a guide for experienced personnel, NovoPro shall not be held liable for any damage resulting from the handling or from contact with the above product.