Safety Data Sheet

CPN™ 680
(Carboxyl, Maleimide, Alkyne, Streptavidin)

Version 1.2 Revision Date 17.06.2020
According to Regulation (EC) No. 453/2010

SECTION 1: Identification of the Substance / Mixture & of the Company

Identification of the substance or mixture

Product Code: CPN6800B / CPN6800M / CPN6800A / CPN6800S
Product Name: CPN™ 680 / Carboxyl / Maleimide / Alkyne / Streptavidin

Company/undertaking identification

Stream Bio Ltd, Alderley Park
Nether Alderley,
Cheshire, SK10 4TG, UK

24hr Emergency response +44 (0) 870 8200418 (CHEMTREC). For research use only. Not intended for human or animal diagnostic or therapeutic uses

SECTION 2: Hazards Identification

In accordance with local and national regulations

GHS – Classification
Non hazardous

Health hazards
Non hazardous

Signal word
Non hazardous

Physical hazards
Non hazardous

European Union
Non hazardous

EU specific hazard statements
R-phrase(s)

Principle routes of exposure / potential health effects

Eyes	May cause eye irritation in susceptible persons
Skin	May cause skin irritation in susceptible persons
Inhalation	May be harmful by inhalation
Ingestion	May be harmful if swallowed

Specific effects

Carcinogenic effects	Substance not yet tested
Mutagenic effects	Substance not yet tested
Reproductive toxicity	Substance not yet tested
Sensitisation	Substance not yet tested
Target organ effects	No information

SECTION 3: Composition / Information on Ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

Chemical Name	CAS-No	EINECS-No	Weight percent
Conjugated polymer	None	Not listed	>50 %
Polystyrene maleic acid anhydride	9011-13-6	100.211.126	>30 %
Iron oxide nanoparticles	None	Not listed	<10 %
Carboxyl polyethylene glycol (for CPN6800B)	196936-04-6	Not Listed	<5 %
Strepatavidin polyethylene glycol (for CPN6800S)	None	Not Listed	<5%
Maleimide polyethylene glycol (for CPN6800M)	------	Not Listed	<5%
Alkyne polyethylene glycol (for CPN6800A)	------	Not Listed	<5%

SECTION 4: First Aid Measures

Skin contact	Rinse cautiously with water for several minutes. If symptoms occur, obtain medical advice.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a doctor.
Ingestion	Never give anything by mouth to an unconscious person. If symptoms persist, call a doctor. Do not induce vomiting without medical advice.
Inhalation	Remove to fresh air. If symptoms persist, call a doctor. If not breathing, give artificial respiration.
Notes to Physician	Teat symptomatically.

SECTION 5: Firefighting Measures

Suitable extinguishing media	Water spray. Carbon dioxide (CO2). Foam. Dry chemical.
Special protective equipment for firefighters	Wear self-contained breathing apparatus & protective suit.

SECTION 6: Accidental Release Measures

Personal precautions	Use personal protection equipment
Methods for cleaning up	Soak up with inert absorbent material
Environmental precautions	Prevent further leakage or spillage if safe to do so. See section 12 for more information

SECTION 7: Handling and Storage

Handling	Avoid contact with skin, eyes and clothing. Wear personal protective equipment.
Storage	Keep in a dry, cool and well-ventilated place.

SECTION 8: Exposure Controls / Personal Protection

Exposure limits

At this time, the limited evidence available suggests caution when potential exposures to nanoparticles may occur. Due to the limited information about health risks from nanomaterials, it is prudent to take steps for minimizing worker exposures. Research is still needed to understand the impact of nanotechnology on health, and to determine appropriate exposure monitoring and control strategies.

Contains no substances with occupational exposure limit values.

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protective equipment

Personal protective equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment
Hand protection	Impervious gloves
Eye protection	Safety glasses with side-shields
Skin and body protection	Lightweight protective clothing
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice
Environmental exposure controls	Prevent product from entering drains

SECTION 9: Physical and Chemical Properties

General information

Form	Suspension
Appearance	Coloured liquid
Odor	No information available
Boiling point / boiling range	No data available
Melting point / melting range	No data available
Flash point	No data available
Autoignition temperature	No data available
Oxidising properties	No data available
Water solubility	Soluble

SECTION 10: Stability and Reactivity

Chemical stability	Stable under normal conditions
Reactivity	None known
Materials to avoid	No dangerous reaction known under conditions of normal use
Hazardous decomposition products	None under normal use condition
Polymerisation	Hazardous polymerisation does not occur
Conditions to avoid	No information available

SECTION 11: Toxicological Information

Acute toxicity

At this time, the limited evidence available suggests caution when potential exposures to nanoparticles may occur. Due to the limited information about health risks from nanomaterials, it is prudent to take steps for minimizing worker exposures. Occupational health risks associated with manufacturing and using nanomaterials are not yet clearly understood. Studies have indicated that low solubility nanoparticles are more toxic than larger particles on a mass for mass basis. There are strong indications that particle surface area and surface chemistry are responsible for observed responses in cell cultures and animals. There are indications that nanoparticles can penetrate through the skin or move from the respiratory system to other organs.

Principle routes of exposure / potential health effects

Eyes	May cause eye irritation with susceptible persons
Skin	May cause skin irritation in susceptible persons
Inhalation	May be harmful by inhalation
Ingestion	May be harmful if swallowed
Carcinogenic effects	None
Mutagenic effects	None
Reproductive toxicity	None
Sensitisation	None
Target organ effects	No known effects under normal use conditions

SECTION 12: Ecological Information

Ecotoxicity	No information available
Mobility	No information available
Biodegradation	Inherently biodegradable
Bioaccumulation	Material does not bioaccumulate

SECTION 13: Disposal Considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport Information

IATA

Proper shipping name	Not classified as dangerous within the meaning of transport regulations
Hazard class	None
Subsidiary class	None
Packing group	None
UN-N	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory Information

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

Substances of very high concern	None
Restricted substances under EC 1907/2006, Annex XVII	None
Substances listed under Annex I of Regulation (EC) No 689/200	None
Restricted substances under Annex V of Regulation (EC) No 689/2008	None
Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC	None
German Water hazard classes (Wassergefährdungsklassen)	Not classified
Other international inventories	No information available
Chemical safety assessment	No chemical safety assessment has been carried out

SECTION 16: Other Information

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References

- National Institute for Occupational Safety and Health (NIOSH), U.S., 2010: http://www.cdc.gov/niosh/topics/nanotech/
- National Institute for Occupational Safety and Health (NIOSH), U.S., 2009: http://www.cdc.gov/niosh/docs/2009-125/pdfs/2009-125.pdf

END OF SAFETY DATA SHEET