Version 5
Version date: 25th August 2023

Rapid Protein Stain Coomassie Blue
Safety Data Sheet

SECTION 1: Name of substance and company details

Product Name:	Rapid Protein Stain Coomassie Blue
Product code:	WB 11-9211
Company:	Westburg B.V.
	Arnhemseweg 87, 3832 GK Leusden, the Netherlands
Email:	info@Westburg.eu
Tel:	+31 (0) 33 494 6666

SECTION 2: Hazards identification

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567
Serious eye damage (Category 1), H318
For the full text of the H-Statements mentioned in this Section, see Section 16.
Label elements
Labelling according Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567
Pictogram

Signal Word Danger

Hazard statement(s)

H318 Causes serious eye damage.

Precautionary statement(s)

P280 Wear eye protection/ face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements none

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 **Mixtures**

Component		Classification	Concentration
Tartaric acid			
CAS-No. EC-No. Registration number	87-69-4 201-766-0 01-2119537204-47-XXXX	Eye Dam. 1; H318	>= 10 - < 20 %
α-cyclodextrin			
CAS-No. EC-No.	10016-20-3 233-007-4 *	Eye Irrit. 2; H319	>= 1 - < 10 %
ethanol			
CAS-No. EC-No. Index-No. Registration number	64-17-5 200-578-6 603-002-00-5 01-2119457610-43-XXXX	Flam. Liq. 2; Eye Irrit. 2; H225, H319 Concentration limits: >= 50 %: Eye Irrit. 2A, H319;	>= 1 - < 10 %

*A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

Description of first-aid measures General advice

Show this material safety data sheet to the doctor in attendance.
If inhaled
After inhalation: fresh air.
In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact
After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
If swallowed
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

Extinguishing media Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture
Mixture with combustible ingredients.
Development of hazardous combustion gases or vapours possible in the event of fire.
Advice for firefighters
In the event of fire, wear self-contained breathing apparatus.
Further information
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.
Environmental precautions
Do not let product enter drains.
Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities Storage conditions
Tightly closed.
Recommended storage temperature see product label.
Storage class
Storage class (TRGS 510): 10: Combustible liquids
Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

Control parameters

Ingredients with workplace control parameters

Component	CAS-No.	Control parameter s	Value	Basis
ethanol	64-17-5	TWA	1,000 ppm 1,920 mg/m3	UK. EH40 WEL - Workplace Exposure Limits

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested:KCL 741 Dermatril® L
This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber
Minimum layer thickness: 0.11 mm Break through time: 480 min
Material tested:KCL 741 Dermatril® L
Body Protection
protective clothing

Respiratory protection

required when vapours/aerosols are generated.
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.
Recommended Filter type: Filter type ABEK
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.
These measures have to be properly documented.
Control of environmental exposure
Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Aqueous solution
Color	blue green
Odor	No data available
Melting point/freezing point	No data available 100 °C No data available No data available
Initial boiling point and boiling range	
Flammability (solid, gas)	
Upper/lower flammability or explosive limits	
Flash point	No data available
Autoignition temperature	No data available No data available
Decomposition temperature	
pH	No data available
Viscosity, kinematic:	No data available Viscosity, dynamic: No data available
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	No data available

Vapor pressure		No data available
Density1.06 g/cm3 at 25 °C	Relative density	No data available
Relative vapor density	No data available	No data available
Particle characteristics		

Explosive properties Not classified as explosive.
Oxidizing properties none
Other safety information
No data available

SECTION 10: Stability and reactivity

Reactivity

No data available
Chemical stability
The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions
Exothermic reaction with:
Strong oxidizing agents silver
hydrogen peroxide alkaline substances with
Risk of explosion with:
silver salt
Risk of ignition or formation of inflammable gases or vapours with: Fluorine
Violent reactions possible with:
The generally known reaction partners of water.

Conditions to avoid
no information available
Incompatible materials
No data available
Hazardous decomposition products
In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects Mixture

Acute toxicity
Oral: No data available
Symptoms: Possible symptoms:, mucosal irritations

Dermal: No data available
Skin corrosion/irritation
No data available
Serious eye damage/eye irritation
Remarks: Mixture causes serious eye damage.
Respiratory or skin sensitization
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
No data available
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
Additional Information Endocrine disrupting properties
Product:
Assessment The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Components Tartaric acid
Acute toxicity
LD50 Oral - Rat - female - > 2,000 - < 5,000 mg/kg (OECD Test Guideline 423)
Inhalation: No data available
LD50 Dermal - Rat - male and female - > 2,000 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation - 4 h

(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - In vitro study
Result: Irreversible effects on the eye (OECD Test Guideline 437)
Respiratory or skin sensitization Local lymph node assay (LLNA) - Mouse Result: Not a skin sensitizer.
(OECD Test Guideline 429)
Germ cell mutagenicity Method: OECD Test Guideline 478 Species: Rat - male and female Result: negative
Method: OECD Test Guideline 475 Species: Rat - male - Bone marrow Result: negative
Carcinogenicity
No data available
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available

<u>α-cyclodextrin</u>
Acute toxicity
LD50 Oral - Rat - > 10,000 mg/kg Remarks: (External MSDS) Inhalation: No data available Dermal: No data available
Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation Remarks: (External MSDS)
Serious eye damage/eye irritation
Eyes - Rabbit Result: Eye irritation
Remarks: (External MSDS)
Respiratory or skin sensitization Sensitisation test: - Guinea pig Result: negative
Remarks: (External MSDS)

Germ cell mutagenicity
Test Type: Mutagenicity (mammal cell test): micronucleus. Result: negative
Remarks: (External MSDS) Test Type: Ames test
Test system: Salmonella typhimurium Result: negative
Remarks: (External MSDS)
Carcinogenicity
No data available
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available

ethanol
Acute toxicity
LD50 Oral - Rat - male and female - 10,470 mg/kg (OECD Test Guideline 401)
LC50 Inhalation - Rat - male and female - 4 h - 124.7 mg/l - vapor (OECD Test Guideline 403)
Dermal: No data available
Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation - 24 h (OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: Causes serious eye irritation. (OECD Test Guideline 405)
Respiratory or skin sensitization Maximization Test - Guinea pig Result: negative
(OECD Test Guideline 406)
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: Methanol
Germ cell mutagenicity
Test Type: Ames test
Test system: Salmonella typhimurium Result: negative
Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells
Result: negative
Method: OECD Test Guideline 478 Species: Mouse - male

Result: Positive results were obtained in some in vivo tests.
Carcinogenicity
No data available
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure Aspiration hazard
No data available

SECTION 12: Ecological information

Toxicity

Mixture
No data available
Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties Product:
Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other adverse effects
No data available
Components Tartaric acid
Toxicity to fish static test LC50 - Danio rerio (zebra fish) - > 100 mg/l - 96 h
(OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 93.3 mg/l - 48 h
(OECD Test Guideline 202)

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata - 51.4 mg/l - 72 h
(OECD Test Guideline 201)

static test NOEC - Pseudokirchneriella subcapitata (green algae)
- 3.125 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria static test EC50 - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)
α-cyclodextrin

No data available
ethanol
Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 15,300 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates static test LC50 - Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48 h
Remarks: (ECHA)

Toxicity to algae static test ErC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria static test IC50 - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)
Toxicity to fish(Chronic toxicity) semi-static test NOEC - Danio rerio (zebra fish) - 250 mg/l - 120 h
Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) semi-static test NOEC - Daphnia magna (Water flea) - 9.6 mg/l - 9 d
Remarks: (ECHA)

SECTION 13: Disposal considerations

Waste treatment methods Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.
Notice Directive on waste 2008/98/EC.

SECTION 14: Transport information

UN number

ADR/RID: - IMDG: - IATA: -
UN proper shipping name ADR/RID: Not dangerous goods IMDG: Not dangerous goods

IATA: Not dangerous goods
Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -
Packaging group
ADR/RID: - IMDG: - IATA: -
Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no
Special precautions for user
No data available
Further information
Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Other regulations
Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapor.
H318 Causes serious eye damage. H319

Full text of other abbreviations
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN
- United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative
Classification of the mixture Classification procedure:
Eye Dam.1 H318 Calculation method

Further information
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 based 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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.