

Reviewed on 06/07/2017

1 Identification

- · Product identifier
- · Trade name: <u>Evans Blue</u>
- Article number: 151108
- · CAS Number:
- 314-13-6
- EC number:
- 206-242-5
- · Molecular Formula C34 H24 N6 O14 S4 Na4
- Molecular Weight 960.82
- · Application of the substance / the mixture For Research Use Only

Details of the supplier of the safety data sheet Manufacturer/Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139 United States www.mpbio.com

• *Information department: Quality Control Department* • *Emergency telephone number:* CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Hazard(s) identification

· Classification of the substance or mixture



Carc. 1B H350 May cause cancer.

- · Label elements
- *GHS label elements* The substance is classified and labeled according to the Globally Harmonized System (GHS). *Hazard pictograms*



- · Signal word Danger
- Hazard-determining components of labeling: Evans Blue
- · Hazard statements
- May cause cancer.
- **Precautionary statements** Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wear protective gloves/protective clothing/eye protection/face protection.
- *IF exposed or concerned: Get medical advice/attention.*
- Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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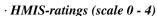
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• Classification system: • NFPA ratings (scale 0 - 4)

Health = 1 Fire = 0Reactivity = 0



HEALTH*1Health = *1FIRE0Fire = 0REACTIVITY0Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.

• **vPvB:** Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- 314-13-6 Evans Blue
- · Identification number(s)
- EC number: 206-242-5

4 First-aid measures

- · Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Flush eyes with running water as a precaution.
- After swallowing: If symptoms persist consult doctor.
- · Information for doctor
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 *Fire-fighting measures*

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

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6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

- $\cdot \textit{Environmental precautions: } Do not allow to enter sewers/ surface or ground water.$
- Methods and material for containment and cleaning up:

Pick up mechanically, dispose contaminated material as waste according to Section 13. Ensure adequate ventilation.

- · Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

• Protective Action Criteria for Chemicals

• PAC-1:

Substance is not listed.

· PAC-2:

Substance is not listed.

· PAC-3:

Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Avoid direct contact with skin and eyes. Open and handle receptacle with care.

- · Information about protection against explosions and fires: Keep respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- Storage: 15-30 °C
- · Requirements to be met by storerooms and receptacles: No special requirements.
- Further information about storage conditions: Desiccate.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

• Additional information about design of technical systems: No further data; see Section 7.

- · Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls

- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Store protective clothing separately.

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· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

• Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation • Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

General Information		
Appearance: Form:	Powder	
Form. Color:	Brown	
Odor:	Indeterminate	
Odor threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Product is not flammable.	
Ignition temperature:		
Decomposition temperature:	Not determined.	
Auto igniting:	Not determined.	
Danger of explosion:	See section 10	
Explosion limits:		
Lower:	Not Applicable	
Upper:	Not Applicable	
Vapor pressure:	Not applicable.	

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Density:	Not Applicable	
Relative density	Not determined.	
Vapor density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with	Not Determined	
Water:	Soluble.	
Partition coefficient (n-octanol/wa	uter): Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
Solvent content:		
Organic solvents:	0.0 %	
VOC content:	0.0 g/l / 0.00 lb/gl	
Other information	No further relevant information available.	

10 Stability and reactivity

• *Reactivity* No further relevant information available.

- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- on the skin: No irritant effect.
- \cdot on the eye: Irritant and potentially harmful
- Sensitization: No sensitizing effects known.
- $\cdot \textit{Additional toxicological information:}$

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

· NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

· Toxicity

• Aquatic toxicity: No further relevant information available.

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- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.
- · Additional ecological information:
- · General notes:
- Water hazard class 1 (Self-assessment): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Can not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Discard must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleaning agents.

14 Transport information · UN-Number · DOT, ADR, IMDG, IATA Not regulated · UN proper shipping name · DOT, ADR, IMDG, IATA Not regulated · Transport hazard class(es) · DOT, ADR, IMDG, IATA · Class Not regulated · Packing group · DOT, ADR, IMDG, IATA Not regulated · Environmental hazards: Not applicable. · Special precautions for user Not applicable. • Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · UN ''Model Regulation'': Not regulated

15 Regulatory information

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

· Sara

• Section 355 (extremely hazardous substances):

Substance is not listed.

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· Section 313 (Specific toxic chemical listings):	
Substance is not listed.	
· TSCA (Toxic Substances Control Act):	

Substance is listed.

· Proposition 65

 \cdot Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

• GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS). • Hazard pictograms



· Signal word Danger

Hazard-determining components of labeling: Evans Blue
Hazard statements May cause cancer.
Precautionary statements Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

• Additional classification according to Decree on Hazardous Materials: Carcinogenic hazardous material group I (extremely dangerous). Carcinogenic hazardous material group II (very dangerous). Carcinogenic hazardous material group III (dangerous).

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· Information about limitation of use:

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Quality Control Dept.

- · Date of preparation / last revision 06/07/2017 / -
- · Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety **OSHA:** Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Carc. 1B: Carcinogenicity - Category 1B 11S