



# Clostridium botulinum Type B Toxoid, Neogen®Vet BotVax® B

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)  
Issue date: 1/28/2025 Revision date: 1/9/2026 Supersedes: 8/13/2025 Version: 4.0

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Clostridium botulinum Type B Toxoid, Neogen®Vet BotVax® B  
Product code : 200180

#### 1.2. Other means of identification

Part Number(s) : 200180|200181|200180-CAN

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Injectable solution  
Restrictions on use : For animal use only

#### 1.4. Supplier's details

Neogen Corporation  
620 Leshar Place  
Lansing, Michigan 48912  
United States of America  
T 800.234.5333  
[sds@neogen.com](mailto:sds@neogen.com) - <https://www.neogen.com/>

#### 1.5. Emergency phone number

Emergency number : 24 hours:  
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)  
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

### SECTION 2 Hazard Identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Carcinogenicity, Category 1A	H350	May cause cancer.
Full text of H statements : see section 16		

#### 2.2. Label elements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger  
Hazard statements (GHS US) : H317 - May cause an allergic skin reaction  
H350 - May cause cancer.  
Precautionary statements (GHS US) : P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.  
P272 - Contaminated work clothing must not be allowed out of the workplace.

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P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.  
P302+P352 - If on skin: Wash with plenty of water.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P405 - Store locked up.  
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

80% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)  
80% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)  
80% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Formaldehyde	CAS-No.: 50-00-0	0.1 – 0.5	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:gas), H330 Skin Corr. 1B, H314 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1A, H350

Full text of hazard classes and H-statements : see section 16

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.  
First-aid measures after eye contact : Rinse eyes with water as a precaution.  
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.  
Personal protection for first-aid responders. : First aid workers will be equipped with suitable personal protective equipment.

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### 4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6 Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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#### For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

#### For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.
Environmental precautions	: Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.2. Methods and materials for containment and cleaning up

For containment	: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

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For further information refer to section 13.

### SECTION 7 Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.
- Hygiene measures : Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Store locked up.
- Storage temperature : 2 – 8 °C
- Packaging materials : Always store product in container of same material as original container.

### SECTION 8 Exposure controls/personal protection

#### 8.1. Control parameters

Formaldehyde (50-00-0)	
<b>USA - ACGIH® - Threshold Limit Values</b>	
Local name	Formaldehyde
ACGIH® TLV® TWA	0.12 mg/m <sup>3</sup>
	0.1 ppm
ACGIH® TLV® STEL	0.37 mg/m <sup>3</sup>
	0.3 ppm
Remark (ACGIH®)	TLV® Basis: URT & eye irr; URT cancer. Notations: DSEN; RSEN; A1 (Confirmed Human Carcinogen)
Regulatory reference	ACGIH 2025
<b>USA - OSHA - Occupational Exposure Limits</b>	
Local name	Formaldehyde
OSHA PEL TWA	0.75 ppm OSHA 1910.1048(c)(1)
OSHA PEL STEL	2 ppm OSHA 1910.1048(c)(2)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
<b>USA - Cal/OSHA - Occupational Exposure Limits</b>	
Local name	Formaldehyde
Cal/OSHA PEL (OEL TWA)	0.75 ppm
Cal/OSHA STEL	2 ppm

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Formaldehyde (50-00-0)	
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)
USA - NIOSH - Occupational Exposure Limits	
Local name	Formaldehyde
NIOSH REL 10h TWA	0.016 ppm
NIOSH REL C	0.1 ppm [15-min]
Remark (NIOSH)	Ca = Potential occupational carcinogens
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment

#### Personal protective equipment:

Wear recommended personal protective equipment.

<b>Hand protection:</b>
Protective gloves
<b>Eye protection:</b>
Safety glasses
<b>Skin and body protection:</b>
Wear suitable protective clothing
<b>Respiratory protection:</b>
[In case of inadequate ventilation] wear respiratory protection.

#### Personal protective equipment symbol(s):



## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

Physical state : Liquid  
Color : Clear Colorless  
Odor : Odorless  
Odor threshold : No data available  
pH : 5.3 – 5.7  
Melting point : Not applicable  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Flammability (solid, gas) : Not applicable.  
Vapor pressure : No data available

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Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10 Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11 Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Unknown acute toxicity (GHS US)	80% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 80% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 80% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
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#### Formaldehyde (50-00-0)

LD50 oral rat	800 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, 2 % aqueous solution, Oral, 14 day(s))
LD50 oral	600 mg/kg
LD50 dermal rabbit	270 mg/kg

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Formaldehyde (50-00-0)	
LD50 dermal	270 mg/kg
LC50 Inhalation - Rat [ppm]	490 ppm (Equivalent or similar to OECD 403, 4 h, Rat, Male, Experimental value, Inhalation (gases))
ATE US (oral)	600 mg/kg body weight
ATE US (dermal)	270 mg/kg body weight
ATE US (gases)	490 ppmV/4h
ATE US (vapors)	0.5 mg/l/4h
ATE US (dust, mist)	0.05 mg/l/4h
Skin corrosion/irritation	: Not classified pH: 5.3 – 5.7

Formaldehyde (50-00-0)	
pH	2.8 – 4 (37 %)
Serious eye damage/irritation	: Not classified pH: 5.3 – 5.7

Formaldehyde (50-00-0)	
pH	2.8 – 4 (37 %)
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

Formaldehyde (50-00-0)	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

Formaldehyde (50-00-0)	
Viscosity, kinematic	No data available in the literature
Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

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Formaldehyde (50-00-0)	
LC50 - Fish [1]	6.7 mg/l (96 h, Morone saxatilis, Static system, Salt water, Experimental value, Lethal)
EC50 - Crustacea [1]	5.8 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia pulex, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h - Algae [1]	4.89 mg/l Desmodesmus subspicatus (green algae), OECD Test Guideline 201
NOEC (chronic)	≥ 6.4 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 48 mg/l Test organisms (species): Oryzias latipes Duration: '28 d'
NOEC chronic crustacea	≥ 6.4 mg/l 21 days, Daphnia magna (Water flea), OECD Test Guideline 211

### 12.2. Persistence and degradability

Clostridium botulinum Type B Toxoid, Neogen®Vet BotVax® B	
Persistence and degradability	Not rapidly degradable
Formaldehyde (50-00-0)	
Persistence and degradability	Readily biodegradable in water.
Biodegradation	91 % OECD Test Guideline 301C, 14 d

### 12.3. Bioaccumulative potential

Formaldehyde (50-00-0)	
BCF - Fish [1]	< 1 (1 h, Flow-through system, Salt water, Weight of evidence)
Partition coefficient n-octanol/water (Log Pow)	0.35 (Calculated, KOWWIN, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

Formaldehyde (50-00-0)	
Surface tension	73 mN/m (20 °C, Aqueous solution, 7.5 g/l)
Ecology - soil	Not applicable (gas). Toxic to flora.

### 12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

## SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.
Ecological waste information	: The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.

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### SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
<b>14.1. UN number</b>			
Not regulated for transport			
<b>14.2. Proper Shipping Name</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

### 14.6. Transport in bulk

Not applicable

### 14.7. Special precautions for user

#### DOT

Not regulated

#### TDG

Not regulated

#### IMDG

Not regulated

#### IATA

Not regulated

### SECTION 15 Regulatory information

#### 15.1. Federal regulations

All components of this product are exempt or present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Formaldehyde	CAS-No. 50-00-0	0.1 – 0.5%
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#### Formaldehyde (50-00-0)

Listed on EPA Hazardous Air Pollutant (HAPS)  
Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens  
Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits

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Formaldehyde (50-00-0)	
CERCLA RQ	100 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb

### 15.2. International regulations

No additional information available

### 15.3. State regulations



**WARNING:**

This product can expose you to chemicals including Formaldehyde (gas), which is known to the State of California to cause cancer, and Thimerosal, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Revision date : 1/9/2026

Issue date : 1/28/2025

Full text of hazard classes and H-statements	
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H330	Fatal if inhaled
H341	Suspected of causing genetic defects.
H350	May cause cancer.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.