



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

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 08-13-2025 Revision date: 01-09-2026 Supersedes: 08-13-2025 Version: 2.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : Clostridium botulinum Type B Toxoid, Neogen®Vet BotVax® B
Type of product : Animal Safety -- [Animal Safety]
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 - <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

Classification (GHS CA)

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

2.2. GHS label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : H317 - May cause an allergic skin reaction
H350 - May cause cancer.

Precautionary statements (GHS CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.

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P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.
P272 - Contaminated work clothing should not be allowed out of the workplace.
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 or 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. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Formaldehyde	Formaldehyde formaldehyde / formic aldehyde / formol / methanal / methyl aldehyde / methylene oxide / methyleneglycol / oxomethane / oxymethylene / tetraoxymethylene	CAS-No.: 50-00-0	≥ 0.1 – < 0.5	Flam. Gas 1, H220 Press. Gas (Liq.), H280 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:gas), H330 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

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.
First-aid measures general : IF exposed or concerned: Get medical advice/attention.
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 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 actions 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.
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.

For further information refer to section 13.

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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 any 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)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL TWA	0.9 mg/m ³
	0.75 ppm
OEL C	1.3 mg/m ³
	1 ppm
Notations and remarks	Carcinogenicity A2
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Formaldehyde (Formic aldehyde)
Plafond (OEL C)	1.5 ppm
Notations and remarks	C2, EM, RP, S(D), S(R)
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL TWA	0.1 ppm
OEL STEL	0.3 ppm
Notations and remarks	ACGIH Carcinogenicity category A1, IARC group 1 carcinogen; S(D) (substance with specific evidence of sensitization by dermal route); S(R) (substance with specific evidence of sensitization by respiratory route)

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Formaldehyde (50-00-0)	
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL TWA	0.12 mg/m ³
	0.1 ppm
OEL STEL	0.37 mg/m ³
	0.3 ppm
Notations and remarks	TLV® Basis: URT & eye irr; URT cancer. Notations: DSEN; RSEN; A1 (Confirmed Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (New Brunswick) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL C	0.3 ppm
Notations and remarks	URT & eye irr; SEN; A2
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL TWA	0.12 mg/m ³
	0.1 ppm
OEL STEL	0.37 mg/m ³
	0.3 ppm
Notations and remarks	TLV® Basis: URT & eye irr; URT cancer. Notations: DSEN; RSEN; A1 (Confirmed Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL TWA	0.12 mg/m ³
	0.1 ppm
OEL STEL	0.37 mg/m ³
	0.3 ppm
Notations and remarks	TLV® Basis: URT & eye irr; URT cancer. Notations: DSEN; RSEN; A1 (Confirmed Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL C	0.3 ppm
Notations and remarks	SEN, Designated substance
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)

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Formaldehyde (50-00-0)	
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL C	0.3 ppm
Notations and remarks	SEN, Designated substance
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL TWAEV	1 ppm
OEL C	1.5 ppm
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Ontario table of occupational exposure limits
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL TWA	0.12 mg/m ³ 0.1 ppm
OEL STEL	0.37 mg/m ³ 0.3 ppm
Notations and remarks	TLV® Basis: URT & eye irr; URT cancer. Notations: DSEN; RSEN; A1 (Confirmed Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Formaldehyde
OEL C	0.3 ppm
Notations and remarks	SEN, Designated Chemical Substance
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

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 (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

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Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[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
Appearance	: No data available
Color	: Clear Colorless
Odor	: Odorless
Odor threshold	: No data available
pH	: 5.3 – 5.7
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: No data available
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
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

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	: No additional information available

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SECTION 11 Toxicological information

11.1. Likely routes of exposure

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

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Unknown acute toxicity (GHS CA)	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
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 CA (oral)	600 mg/kg body weight
ATE CA (Dermal)	270 mg/kg body weight
ATE CA (Gases)	490 ppmV/4h
ATE CA (vapors)	0.5 mg/l/4h
ATE CA (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 %)
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Serious eye damage/irritation : Not classified
pH: 5.3 – 5.7

Formaldehyde (50-00-0)

pH	2.8 – 4 (37 %)
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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

Formaldehyde (50-00-0)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

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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. Toxicity

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.

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 fish	≥ 48 mg/l Test organisms (species): Oryzias latipes Duration: '28 d'
NOEC (chronic)	≥ 6.4 mg/l Test organisms (species): Daphnia magna Duration: '21 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)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
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)

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.

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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.

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
Not regulated for transport			
14.2. UN Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group, if applicable			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

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SECTION 15 Regulatory information

Formaldehyde (50-00-0)

Listed on the Canadian DSL (Domestic Substances List)

Formaldehyde (50-00-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16 Other Information

Issue date : 08-13-2025
Revision date : 01-09-2026
Supersedes : 08-13-2025

Full text of hazard classes and H-statements:

H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H311	Toxic in contact with skin
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H335	May cause respiratory irritation
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), Canada

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.