Veratox® for Aflatoxin

Kit Product

Kit identification

Trade name	:	Veratox® for Aflatoxin
Product code	:	8030
Part Number(s)	:	8030|700002479

Details of the supplier of the Kit safety information sheet

Manufacturer

Neogen Corporation
620 Lesher Place Lansing 48912 Michigan United States of America
T 800.234.5333
sds@neogen.com - https://www.neogen.com/

General information

Restrictions on use	:	Do not use kit components from one kit with any other kit.
General description	:	This is a test kit that is comprised of several individual components, listed below, each of which may have its own Safety Data Sheet (SDS). Articles, and otherwise immobilized and inaccessible chemicals, do not have a Safety Data Sheet in this packet.

Kit contents

Name	GHS classification
Aflatoxin Multi-Level Controls	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation:dust,mist), H331 Eye Irrit. 2, H319 Repr. 1B, H360 STOT SE 1, H370 STOT RE 1, H372
Aflatoxin-HRP Conjugate	Not classified
K-Blue® Advanced Plus TMB Substrate	Not classified
Red Stop Solution	Not classified

Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
UN number		
3316	3316	3316
Proper Shipping Name		
CHEMICAL KIT	Chemical kit	CHEMICAL KIT

IMDG	IATA	UNRTDG
Transport document description		
UN 3316 CHEMICAL KIT, 9	UN 3316 Chemical kit, 9	UN 3316 CHEMICAL KIT, 9
Transport hazard class(es)		
9	9	9
		
Packing group		
Not applicable	Not applicable	Not applicable
Environmental hazards		
Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available		

Special precautions for user

UN RTDG

UN-No. (UN RTDG)	:	3316
Special provision (UN RTDG)	:	251, 340
Limited quantities (UN RTDG)	:	See SP 251 in Chapter 3.3
Excepted quantities (UN RTDG)	:	See SP 340 in Chapter 3.3
Packing instruction (UN RTDG)	:	P901

IMDG

UN-No. (IMDG)	:	3316
Special provision (IMDG)	:	251, 340
Limited quantities (IMDG)	:	SP251
Excepted quantities (IMDG)	:	SP340
Packing instructions (IMDG)	:	P901
EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-P - SPILLAGE SCHEDULE Papa - SUBSTANCES DANGEROUS WHEN WET (COLLECTABLE ARTICLES)
Stowage category (IMDG)	:	A

IATA

UN-No. (IATA)	:	3316
PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	Y960
PCA limited quantity max net quantity (IATA)	:	1kg
PCA packing instructions (IATA)	:	960
PCA max net quantity (IATA)	:	10kg
CAO packing instructions (IATA)	:	960
CAO max net quantity (IATA)	:	10kg
Special provision (IATA)	:	A44, A163
ERG code (IATA)	:	9L

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 1: Identification

1.1. Product identifier

Trade name : Aflatoxin Multi-Level Controls
Name : Aflatoxin Multi-Level Controls 8010

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Laboratory chemicals,Scientific research and development
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Details of the supplier of the safety data sheet

Manufacturer
Neogen Corporation
620 Lesher Place Lansing 48912 Michigan United States of America
T 800.234.5333
sds@neogen.com - https://www.neogen.com/

1.5. Emergency telephone 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: Hazards identification

2.1. Classification of the substance or mixture

Flammable liquids Category 2	H225
Acute toxicity (oral) Category 4	H302
Acute toxicity (inhalation:dust,mist) Category 3	H331
Serious eye damage/eye irritation, Category 2	H319
Reproductive toxicity Category 1B	H360
Specific target organ toxicity (single exposure) Category 1	H370
Specific target organ toxicity (repeated exposure) Category 1	H372

2.2. Label elements

Hazard pictograms (GHS PH) :

Signal word (GHS PH) : Danger
Contains : Methanol
Hazard statements (GHS PH) : H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H319 - Causes serious eye irritation
H331 - Toxic if inhaled
H360 - May damage fertility or the unborn child
H370 - Causes damage to organs
H372 - Causes damage to organs through prolonged or repeated exposure
Precautionary statements (GHS PH) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.

P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....
P301+P317 - IF SWALLOWED: Get medical help.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P316 - IF exposed or concerned: Get emergency medical help immediately.
P316 - Get emergency medical help immediately.
P318 - IF exposed or concerned, get medical advice.
P319 - Get medical help if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS PH classification
Methanol	CAS-No.: 67-56-1	≥ 50 – < 75	Expl. Not applicable Flam. Gas Not applicable Aerosol Not applicable Ox. Gas Not applicable Press. Gas Not applicable Flam. Liq. 2, H225 Flam. Sol. Not applicable Self-react. Not applicable Pyr. Sol. Not applicable Water-react. Not applicable Ox. Liq. Not applicable Ox. Sol. Not applicable Org. Perox. Not applicable Met. Corr. Classification not possible Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:gas), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 Eye Irrit. 2, H319 Repr. 1B, H360 STOT SE 1, H370 STOT RE 1, H372
Grain Matrix	-	≥ 25 – < 50	Not classified
Aflatoxin B1	CAS-No.: 1162-65-8	≤ 0.00001	Acute Tox. 1 (Oral), H300 Muta. 2, H341 Carc. 1A, H350

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a doctor.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

Personal protection for first-aid responders. : First-aiders should consider self-protection and use the recommended personal protective equipment (see section 8).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : Toxic if inhaled.

Symptoms/effects after skin contact : None under normal conditions.

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : Harmful if swallowed.

Chronic symptoms : May damage fertility or the unborn child.

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.
Explosion hazard : No direct explosion hazard.
Reactivity : Highly flammable liquid and vapor.
General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

5.3. Advice for firefighters

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.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.

6.1.2. 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.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
Hygiene measures : Separate working clothes from town clothes. Launder separately. 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 : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. 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

Methanol (67-56-1)	
Philippines - Occupational Exposure Limits	
Local name	Methyl Alcohol (Methanol)
OEL TWA	260 mg/m³
	200 ppm
Regulatory reference	Occupational Safety And Health Standards Philippines

Exposure limit values of other components

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

Personal protective equipment:
Wear recommended personal protective equipment.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Solution.
Color	:	Clear,Colorless
Odor	:	Alcoholic,Strong
Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=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	:	Highly flammable liquid and vapor
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Solubility	:	Miscible with water.
Partition coefficient n-octanol/water (Log Kow)	:	No data available
Viscosity, kinematic	:	No data available
Explosion limits	:	No data available
Lower explosive limit (LEL)	:	No data available
Upper explosive limit (UEL)	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity	:	Highly flammable liquid and vapor
Chemical stability	:	Stable under normal conditions
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use
Conditions to avoid	:	Avoid contact with hot surfaces,Heat,No flames, no sparks. Eliminate all sources of ignition
Incompatible materials	:	No additional information available
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: Toxicological information

11.1. Acute toxicity

Acute toxicity (oral)	:	Harmful if swallowed.
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Inhalation:dust,mist: Toxic if inhaled.

Aflatoxin Multi-Level Controls	
ATE PH (oral)	1695.714 mg/kg body weight
ATE PH (dust, mist)	0.714 mg/l/4h

Methanol (67-56-1)	
LD50 oral rat	1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, 15-35 % aqueous solution, Oral, 7 day(s))
LD50 oral	1400 mg/kg

Methanol (67-56-1)	
LD50 dermal rabbit	17100 mg/kg (Rabbit, Experimental value, Dermal)
LD50 dermal	15800 mg/kg
LC50 Inhalation - Rat	128.2 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))

Aflatoxin B1 (1162-65-8)	
LD50 oral rat	5 mg/kg (Rat, Oral)

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : May damage fertility or the unborn child.

Methanol (67-56-1)	
LOAEL (animal/male, F0/P)	2340 mg/kg body weight Monkey, Male, 3 days, daily dose

Specific target organ toxicity – single exposure : Causes damage to organs.

Methanol (67-56-1)	
Specific target organ toxicity – single exposure	Causes damage to organs.

Specific target organ toxicity – repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Methanol (67-56-1)	
Specific target organ toxicity – repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

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

Methanol (67-56-1)	
LC50 - Fish [1]	15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)
EC50 96h - Algae [1]	22000 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)
NOEC (chronic)	208 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	446.7 mg/l Test organisms (species): Pimephales promelas Duration: '28 d'
BCF - Fish [1]	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.89 – -0.21 (log Koc, Calculated value)

Aflatoxin B1 (1162-65-8)	
LC50 - Fish [1]	636.965 mg/l Source: ECOSAR

Aflatoxin B1 (1162-65-8)	
EC50 96h - Algae [1]	254.722 mg/l Source: ECOSAR
Partition coefficient n-octanol/water (Log Pow)	1.23 Source: HSDB

12.2. Persistence and degradability

Aflatoxin Multi-Level Controls	
Persistence and degradability	Not rapidly degradable

Methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in the soil, Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.6 – 1.1 g O_2/g substance
Chemical oxygen demand (COD)	1.4 g O_2/g substance
ThOD	1.5 g O_2/g substance

Grain Matrix	
Persistence and degradability	Not rapidly degradable

Aflatoxin B1 (1162-65-8)	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

Aflatoxin Multi-Level Controls	
Bioaccumulative potential	No additional information available

Methanol (67-56-1)	
BCF - Fish [1]	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.89 – -0.21 (log Koc, Calculated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Aflatoxin B1 (1162-65-8)	
Partition coefficient n-octanol/water (Log Pow)	1.23 Source: HSDB
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Aflatoxin Multi-Level Controls	
Mobility in soil	No additional information available

Methanol (67-56-1)	
Mobility in soil	2.75 Source: HSDB
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.89 – -0.21 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

Aflatoxin B1 (1162-65-8)	
Partition coefficient n-octanol/water (Log Pow)	1.23 Source: HSDB

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

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.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Flammable vapors may accumulate in the container. Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

IMDG	IATA	UNRTDG
14.1. UN number		
1230	1230	1230
14.2. Proper Shipping Name		
METHANOL	Methanol	METHANOL
Transport document description		
UN 1230 METHANOL, 3 (6.1), II (12°C c.c.)	UN 1230 Methanol, 3 (6.1), II	UN 1230 METHANOL, 3 (6.1), II
14.3. Transport hazard class(es)		
3 (6.1)	3 (6.1)	3 (6.1)
		
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available		

14.6. Special precautions for user

UN RTDG

UN-No. (UN RTDG) : 1230
Special provision (UN RTDG) : 279
Limited quantities (UN RTDG) : 1L
Excepted quantities (UN RTDG) : E2
Packing instruction (UN RTDG) : P001, IBC02
Portable tank and bulk container special instructions (UN RTDG) : T7
Portable tank and bulk container special provisions (UN RTDG) : TP2

IMDG

UN-No. (IMDG) : 1230

Special provision (IMDG)	:	279
Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T7
Tank special provisions (IMDG)	:	TP2
EmS-No. (Fire)	:	F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	:	S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG)	:	B
Stowage and handling (IMDG)	:	SW2
Flash point (IMDG)	:	12°C c.c.
Properties and observations (IMDG)	:	Colorless, volatile liquid. Flashpoint: 12°C c.c. Explosive limits: 6% to 36.5%. Miscible with water. Toxic if swallowed; may cause blindness. Avoid skin contact.
MFAG-No	:	131

IATA

UN-No. (IATA)	:	1230
PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	352
PCA max net quantity (IATA)	:	1L
CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
Special provision (IATA)	:	A113
ERG code (IATA)	:	3L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Priority Chemical List (PCL) and Chemical Control Orders (CCO)		
Initial List of Single Substances and Compounds Covered under Chemical Control Order (CCO) and Priority Chemical List (PCL) DENR Administrative Order 2015-09	Not applicable	
Priority Chemical List DENR Administrative Order 2005-27	Not applicable	
Chemical Control Orders	Not applicable	
Chemical Control Order for Ozone Depleting Substances	Not applicable	

Others		
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Applicable	METHANOL (67-56-1) Grain Matrix AFLATOXIN B1 (1162-65-8)
Controlled Chemical for Manufacture of Explosives or Explosives Ingredients Presidential Decree No.1866	Not applicable	
Comprehensive Dangerous Drugs Act of 2002	Not applicable	
Fertilizers and Pesticides Regulation (Decree No. 1144)	Not applicable	

Others		
Food Additives Regulation	Mineral salts, amino acids, and vitamin compounds for use in food	METHYL ALCOHOL (67-56-1)
Management of Hazardous Waste (Republic Act No. 6969)	Not applicable	
Philippines Clean Air Act	Not applicable	
High Volume Chemicals List	Applicable	Methyl alcohol (67-56-1)

15.2. International regulations

No additional information available

SECTION 16: Other information

Version : 3.0
Issue date : 25/07/2025
Revision date : 01/06/2026
Supersedes : 19/09/2025

Safety Data Sheet (SDS), Philippines

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.

SECTION 1: Identification

1.1. Product identifier

Trade name : Aflatoxin-HRP Conjugate
Name : Aflatoxin-HRP Conjugate 8010

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Laboratory chemicals,Scientific research and development
Restrictions on use : Do not use kit components from one kit with any other kit.

1.4. Details of the supplier of the safety data sheet

Manufacturer
Neogen Corporation
620 Lesher Place Lansing 48912 Michigan United States of America
T 800.234.5333
sds@neogen.com - https://www.neogen.com/

1.5. Emergency telephone 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: Hazards identification

2.1. Classification of the substance or mixture

Not classified

2.2. Label elements

No additional information available

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS PH classification
Stabilizer	-	≥ 50 – < 75	Not classified
Water	CAS-No.: 7732-18-5	≥ 25 – < 50	Not classified
Stabilizer	-	≥ 1 – < 5	Aquatic Chronic 2, H411
Excipient	-	≥ 0.5 – < 1	Not classified
Buffer salts	-	≥ 0.1 – < 0.5	Not classified
Preservative	-	≥ 0.1 – < 0.5	Acute Tox. 4 (Inhalation:dust,mist), H332

Name	Product identifier	%	GHS PH classification
Preservative	-	< 0.1	Resp. Sens. 1, H334 Skin Sens. 1, H317
Preservative	-	< 0.1	Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 1, H410
Buffer salts	-	< 0.1	Eye Irrit. 2A, H319 STOT SE 3, H335
Preservative	-	< 0.1	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1, H314 Eye Dam. 1, H318
Aflatoxin B1	CAS-No.: 1162-65-8	< 0.1	Acute Tox. 1 (Oral), H300 Muta. 2, H341 Carc. 1A, H350
Preservative	-	< 0.1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice.
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.
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-aiders should consider self-protection and use the recommended personal protective equipment (see section 8).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : None under normal conditions.

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.
General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

5.3. Advice for firefighters

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.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area.

6.1.2. 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.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : 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 : Keep cool. Protect from sunlight.
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

Preservative	
Philippines - Occupational Exposure Limits	
OEL TWA	2 mg/m³
Regulatory reference	Occupational Safety And Health Standards Philippines

Exposure limit values of other components

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

Personal protective equipment:
Wear recommended personal protective equipment.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Solution.
Color	:	Clear,Amber
Odor	:	Odorless,Slight
Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=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	:	Non flammable
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 Kow)	:	No data available
Viscosity, kinematic	:	No data available
Explosion limits	:	No data available
Lower explosive limit (LEL)	:	No data available
Upper explosive limit (UEL)	:	No data available

9.2. Other information

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

SECTION 11: Toxicological information

11.1. Acute toxicity

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

Water (7732-18-5)	
LD50 oral rat	90000 mg/kg

Stabilizer	
LD50 oral rat	> 5000 mg/kg (Rat, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg (Rat, Dermal)
LC50 Inhalation - Rat	> 24 mg/l (1 h, Rat, Experimental value, Inhalation (dust))

Excipient	
LD50 oral rat	> 3980 mg/kg body weight (Rat, Experimental value, 20 % aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 Inhalation - Rat	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20 % aqueous solution, Inhalation (aerosol))
LC50 Inhalation - Rat (Dust/Mist)	> 10.5 mg/l Source: Corporate Solution From Thomson Micromedex

Buffer salts	
LD50 oral rat	> 2000 mg/kg body weight (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 0.83 mg/l air Animal: rat, Guideline: EPA OPP 81-3 (Acute inhalation toxicity), Guideline: other:, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: other:

Preservative	
LD50 oral rat	> 5000 mg/kg (Rat, Literature study, Oral)

Buffer salts	
LD50 oral rat	8290 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Dermal)

Aflatoxin B1 (1162-65-8)	
LD50 oral rat	5 mg/kg (Rat, Oral)

Preservative	
LD50 oral rat	> 5000 mg/kg body weight (Rat, Literature study, Oral)

Preservative	
LD50 oral rat	> 5000 mg/kg body weight (EPA OPP 81-1: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 5010 mg/kg body weight (EPA OPP 81-2, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 2.34 mg/l (EPA OPP 81-3: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, (maximum achievable concentration), Inhalation (aerosol), 14 day(s))

Preservative	
LD50 oral rat	490 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	670 mg/kg
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal	2500 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	0.21 mg/l/4h
LC50 Inhalation - Rat (Vapors)	0.25 mg/l

Preservative	
LD50 oral	325 mg/kg
LD50 dermal rabbit	1350 mg/kg

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Stabilizer	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

Preservative	
NOAEL (animal/female, F0/P)	112 mg/kg body weight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
NOAEL (animal/female, F1)	56.6 mg/kg body weight Animal: rat, Animal sex: female, Guideline: EPA OPPTS 870.3800 (Reproduction and Fertility Effects)

Specific target organ toxicity – single exposure : Not classified

Buffer salts	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

Preservative	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

Specific target organ toxicity – repeated exposure : Not classified

Buffer salts	
NOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Preservative	
NOAEL (oral,rat,90 days)	50 mg/kg bw/day
Specific target organ toxicity – repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

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.

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

Stabilizer	
LC50 - Fish [1]	40 mg/l (96 h, Pimephales promelas, Experimental value)
EC50 - Crustacea [1]	8.3 mg/l (48 h, Daphnia sp., Experimental value)
BCF - Fish [1]	< 7.5 (6 week(s), Cyprinus carpio, Literature study)
Partition coefficient n-octanol/water (Log Pow)	-5.3 (Estimated value, KOWWIN)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5.948 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

Excipient	
LC50 - Fish [1]	5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
LOEC (chronic)	441 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'
NOEC (chronic)	314 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'

Buffer salts	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [1]	564000000 mg/l Source: Ecological Structure Activity Relationships
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	-5.8 Source: International Chemical Safety Cards

Buffer salts	
LC50 - Fish [1]	> 2400 mg/l (48 h, Leuciscus idus, Anhydrous form)

Aflatoxin B1 (1162-65-8)	
LC50 - Fish [1]	636.965 mg/l Source: ECOSAR
EC50 96h - Algae [1]	254.722 mg/l Source: ECOSAR
Partition coefficient n-octanol/water (Log Pow)	1.23 Source: HSDB

Preservative	
Partition coefficient n-octanol/water (Log Pow)	-2.8 (Estimated value, KOWWIN)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	7.858 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

Preservative	
LC50 - Fish [1]	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Semi-static system, Fresh water, Experimental value, Nominal concentration)
LC50 - Fish [2]	> 1000 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Measured concentration)
EC50 96h - Algae [1]	1064.8 mg/l Source: ECOTOX
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Fresh water, Experimental value, Nominal concentration)
Partition coefficient n-octanol/water (Log Pow)	-0.46 (Test data, Equivalent or similar to OECD 107, 21.7 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.78 (log Koc, Calculated value)

Preservative	
LC50 - Fish [1]	2.2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Experimental value, Nominal concentration)
LC50 - Fish [2]	2.15 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	2.9 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Experimental value, Lethal)
EC50 - Crustacea [2]	2.9 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	0.51 mg/l
ErC50 algae	150 µg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Experimental value, GLP)
NOEC chronic algae	0.0403 mg/l
BCF - Fish [1]	6.6 (Equivalent or similar to OECD 305, 56 day(s), Lepomis macrochirus, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-0.9 – 1 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.97 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)

Preservative	
LC50 - Fish [1]	189 mg/l (48 h, Leuciscus idus, Fresh water, Experimental value)
EC50 - Crustacea [1]	40 mg/l (48 h, Ceriodaphnia sp., Experimental value, Locomotor effect)
Partition coefficient n-octanol/water (Log Pow)	-3.88 Source: SRC

12.2. Persistence and degradability

Aflatoxin-HRP Conjugate	
Persistence and degradability	Not rapidly degradable

Stabilizer	
Persistence and degradability	Not rapidly degradable

Water (7732-18-5)	
Persistence and degradability	Not rapidly degradable

Stabilizer	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	0.16 g O_2/g substance

Excipient	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Buffer salts	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

Preservative	
Persistence and degradability	Biodegradability in water: no data available.

Buffer salts	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

Aflatoxin B1 (1162-65-8)	
Persistence and degradability	Biodegradability in water: no data available.

Preservative	
Persistence and degradability	Not readily biodegradable in water.

Preservative	
Persistence and degradability	Readily biodegradable in water.

Preservative	
Persistence and degradability	Not readily biodegradable in water.

Preservative	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

Aflatoxin-HRP Conjugate	
Bioaccumulative potential	No additional information available

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

Stabilizer	
BCF - Fish [1]	< 7.5 (6 week(s), Cyprinus carpio, Literature study)
Partition coefficient n-octanol/water (Log Pow)	-5.3 (Estimated value, KOWWIN)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5.948 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Excipient	
Bioaccumulative potential	Not bioaccumulative.

Buffer salts	
Partition coefficient n-octanol/water (Log Pow)	-5.8 Source: International Chemical Safety Cards
Bioaccumulative potential	Not bioaccumulative.

Preservative	
Bioaccumulative potential	No bioaccumulation data available.

Buffer salts	
Bioaccumulative potential	No bioaccumulation data available.

Aflatoxin B1 (1162-65-8)	
Partition coefficient n-octanol/water (Log Pow)	1.23 Source: HSDB
Bioaccumulative potential	No bioaccumulation data available.

Preservative	
Partition coefficient n-octanol/water (Log Pow)	-2.8 (Estimated value, KOWWIN)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	7.858 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Not bioaccumulative.

Preservative	
Partition coefficient n-octanol/water (Log Pow)	-0.46 (Test data, Equivalent or similar to OECD 107, 21.7 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.78 (log Koc, Calculated value)
Bioaccumulative potential	Not bioaccumulative.

Preservative	
BCF - Fish [1]	6.6 (Equivalent or similar to OECD 305, 56 day(s), Lepomis macrochirus, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-0.9 – 1 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.97 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Preservative	
Partition coefficient n-octanol/water (Log Pow)	-3.88 Source: SRC
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Aflatoxin-HRP Conjugate	
Mobility in soil	No additional information available

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

Stabilizer	
Partition coefficient n-octanol/water (Log Pow)	-5.3 (Estimated value, KOWWIN)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5.948 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Adsorbs into the soil.

Excipient	
Surface tension	73.03 mN/m (23 °C, 14.5 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

Buffer salts	
Partition coefficient n-octanol/water (Log Pow)	-5.8 Source: International Chemical Safety Cards
Ecology - soil	No (test)data on mobility of the substance available.

Preservative	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

Aflatoxin B1 (1162-65-8)	
Partition coefficient n-octanol/water (Log Pow)	1.23 Source: HSDB

Preservative	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	-2.8 (Estimated value, KOWWIN)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	7.858 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Adsorbs into the soil.

Preservative	
Surface tension	71.4 mN/m (22 °C, 1.01 g/l, EU Method A.5: Surface tension)
Partition coefficient n-octanol/water (Log Pow)	-0.46 (Test data, Equivalent or similar to OECD 107, 21.7 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.78 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

Preservative	
Surface tension	72.6 mN/m (20 °C, 0.1 %, EU Method A.5: Surface tension)
Partition coefficient n-octanol/water (Log Pow)	-0.9 – 1 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)

Preservative	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.97 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Highly mobile in soil.

Preservative	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	-3.88 Source: SRC
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

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.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

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

14.6. Special precautions for user

UN RTDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Priority Chemical List (PCL) and Chemical Control Orders (CCO)		
Initial List of Single Substances and Compounds Covered under Chemical Control Order (CCO) and Priority Chemical List (PCL) DENR Administrative Order 2015-09	Not applicable	
Priority Chemical List DENR Administrative Order 2005-27	Not applicable	
Chemical Control Orders	Not applicable	
Chemical Control Order for Ozone Depleting Substances	Not applicable	

Others		
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Applicable	CRAON 17-502 (7732-18-5) Stabilizer Excipient Buffer salts Preservative AFLATOXIN B1 (1162-65-8)
Controlled Chemical for Manufacture of Explosives or Explosives Ingredients Presidential Decree No.1866	Not applicable	
Comprehensive Dangerous Drugs Act of 2002	Not applicable	
Fertilizers and Pesticides Regulation (Decree No. 1144)	Not applicable	
Food Additives Regulation	Enzymes permitted for use in food	Excipient Buffer salts
	Additives approved only for use as food processing	Preservative
Management of Hazardous Waste (Republic Act No. 6969)	Not applicable	
Philippines Clean Air Act	Not applicable	
High Volume Chemicals List	Applicable	Excipient Buffer salts Preservative

15.2. International regulations

No additional information available

SECTION 16: Other information

Version : 4.0
Issue date : 25/07/2025
Revision date : 18/06/2026
Supersedes : 01/06/2026

Safety Data Sheet (SDS), Philippines

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.

SECTION 1: Identification

1.1. Product identifier

Trade name : K-Blue® Advanced Plus TMB Substrate
Name : K-Blue Advanced Plus TMB Substrate
Product code 379210

1.2. Other means of identification

Part Number(s) : 379210|379171||379175|379176|379177|379257|379xxx|700006518|700006523

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Scientific research and development,Laboratory chemicals

1.4. Details of the supplier of the safety data sheet

Neogen Corporation
620 Lesher Place Lansing 48912 Michigan United States of America
T 800.234.5333
sds@neogen.com - https://www.neogen.com/

1.5. Emergency telephone 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: Hazards identification

2.1. Classification of the substance or mixture

Not classified

2.2. Label elements

No additional information available

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS PH classification
Water	CAS-No.: 7732-18-5	> 90	Not classified
Dimethyl sulfoxide	CAS-No.: 67-68-5	≥ 5 – < 10	Flam. Liq. 4, H227
Buffer salts	-	≥ 0.1 – < 0.5	Skin Corr. 1, H314 Eye Dam. 1, H318 STOT SE 3, H335
Buffer salts	-	≥ 0.1 – < 0.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Name	Product identifier	%	GHS PH classification
Peroxide	-	< 0.1	Ox. Sol. 3, H272 Acute Tox. 3 (Dermal), H311 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 2, H411
Preservative	-	< 0.1	Skin Sens. 1, H317
3,3',5,5'-Tetramethylbenzidine	CAS-No.: 54827-17-7	< 0.1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Preservative	-	< 0.1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice.

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.

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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : None under normal conditions.

Symptoms/effects after skin contact : None under normal conditions.

Symptoms/effects after eye contact : None under normal conditions.

Symptoms/effects after ingestion : None under normal conditions.

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.

Explosion hazard : No direct explosion hazard.

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

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

5.3. Advice for firefighters

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.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area.

6.1.2. 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.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : 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 : Keep cool. Protect from sunlight.

Packaging materials : Always store product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

Exposure limit values of other components

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Solution.
Color	:	Clear
Odor	:	Odorless
Odor threshold	:	No data available
pH	:	≥ 3.1 – ≤ 3.4
Relative evaporation rate (butyl acetate=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	:	Non flammable
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 Kow)	:	No data available
Viscosity, kinematic	:	No data available
Explosion limits	:	No data available
Lower explosive limit (LEL)	:	No data available
Upper explosive limit (UEL)	:	No data available

9.2. Other information

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

SECTION 11: Toxicological information

11.1. Acute toxicity

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Water (7732-18-5)	
LD50 oral rat	90000 mg/kg

Dimethyl sulfoxide (67-68-5)	
LD50 oral rat	28300 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	14500 mg/kg
LD50 dermal rat	40000 mg/kg body weight (Rat, Male / female, Experimental value, Dermal, 14 day(s))
LD50 dermal	40000 mg/kg
LC50 Inhalation - Rat	> 5.33 mg/l Source: ECHA
LC50 Inhalation - Rat (Dust/Mist)	5.33 mg/l/4h

Buffer salts	
LD50 oral rat	11700 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 7 day(s))
LD50 oral	5400 mg/kg body weight (Equivalent or similar to OECD 401, Mouse, Male / female, Experimental value, Oral, 10 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))

Buffer salts	
LD50 oral rat	> 5000 mg/kg body weight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 5000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)
LD50 dermal rabbit	5900 mg/kg Source: Corporate Solution From Thomson Micromedex

Peroxide	
LD50 oral rat	> 2000 mg/kg Source: ECHA
LD50 oral	2500 mg/kg
LD50 dermal rabbit	700 mg/kg body weight (Rabbit, Experimental value, Skin)

Preservative	
LD50 oral rat	> 5000 mg/kg (Rat, Oral)

Skin corrosion/irritation : Not classified.
pH: ≥ 3.1 – ≤ 3.4

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Buffer salts	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

Buffer salts	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

Peroxide	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

3,3',5,5'-Tetramethylbenzidine (54827-17-7)	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

Preservative	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

Specific target organ toxicity – repeated exposure : Not classified

Dimethyl sulfoxide (67-68-5)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	2.783 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Guideline: EPA OPPTS 870.3465 (90-Day Inhalation Toxicity)
NOAEL (oral,rat,90 days)	≥ 1000 mg/kg body weight Animal: rat, Guideline: other:

Buffer salts	
LOAEL (oral,rat,90 days)	8000 mg/kg body weight Animal: rat
NOAEL (oral,rat,90 days)	4000 mg/kg body weight Animal: rat

Buffer salts	
LOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral,rat,90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

Peroxide	
NOAEL (dermal,rat/rabbit,90 days)	216 mg/kg body weight Animal: rat
NOAEL (subchronic,oral,animal/male,90 days)	26 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (subchronic,oral,animal/female,90 days)	37 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Specific target organ toxicity – repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

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.

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

Dimethyl sulfoxide (67-68-5)	
LC50 - Fish [1]	> 25 g/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	25 g/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 algae	17 g/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
Partition coefficient n-octanol/water (Log Pow)	-1.4 (Experimental value, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.64 (log Koc, SRC PCKOCWIN v1.66, Calculated value)

Buffer salts	
LC50 - Fish [1]	440 – 760 mg/l (Equivalent or similar to OECD 203, 48 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Other aquatic organisms [1]	> 50 mg/l Test organisms (species): other aquatic crustacea:
Partition coefficient n-octanol/water (Log Pow)	-1.8 – -1.6 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

Buffer salts	
LC50 - Fish [1]	955.892 mg/l Source: Ecological Structure Activity Relationships
EC50 - Crustacea [1]	> 980 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h - Algae [1]	397 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	163.053 mg/l Source: Ecological Structure Activity Relationships
ErC50 algae	397 mg/l (Equivalent or similar to OECD 201, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
Partition coefficient n-octanol/water (Log Pow)	-2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.34 – 1.87 (log Koc, QSAR)

Peroxide	
LC50 - Fish [1]	> 10000 mg/l (48 h, Leuciscus melanotus, Static system, Fresh water, Experimental value)
LC50 - Fish [2]	37.4 mg/l Test organisms (species): Ictalurus punctatus
EC50 - Crustacea [1]	> 10000 mg/l (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 - Other aquatic organisms [1]	5.6 mg/l Test organisms (species): other:
EC50 - Other aquatic organisms [2]	2 mg/l Test organisms (species): other:
Partition coefficient n-octanol/water (Log Pow)	0.09 (QSAR, 25 °C)

Preservative	
Partition coefficient n-octanol/water (Log Pow)	-2.54 (Estimated value)

12.2. Persistence and degradability

K-Blue® Advanced Plus TMB Substrate	
Persistence and degradability	Not rapidly degradable

Water (7732-18-5)	
Persistence and degradability	Not rapidly degradable

Dimethyl sulfoxide (67-68-5)	
Persistence and degradability	Not readily biodegradable in water.

Buffer salts	
Persistence and degradability	Biodegradable in the soil, Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.42 g O_2/g substance
Chemical oxygen demand (COD)	0.728 g O_2/g substance
ThOD	0.686 g O_2/g substance

Buffer salts	
Persistence and degradability	Readily biodegradable in water.

Peroxide	
Persistence and degradability	Readily biodegradable in water.

Preservative	
Persistence and degradability	Not rapidly degradable

3,3',5,5'-Tetramethylbenzidine (54827-17-7)	
Persistence and degradability	Biodegradability in water: no data available.

Preservative	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

K-Blue® Advanced Plus TMB Substrate	
Bioaccumulative potential	No additional information available

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

Dimethyl sulfoxide (67-68-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.4 (Experimental value, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.64 (log Koc, SRC PCKOCWIN v1.66, Calculated value)
Bioaccumulative potential	Not bioaccumulative.

Buffer salts	
Partition coefficient n-octanol/water (Log Pow)	-1.8 – -1.6 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Not bioaccumulative.

Buffer salts	
Partition coefficient n-octanol/water (Log Pow)	-2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.34 – 1.87 (log Koc, QSAR)
Bioaccumulative potential	Not bioaccumulative.

Peroxide	
Partition coefficient n-octanol/water (Log Pow)	0.09 (QSAR, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

3,3',5,5'-Tetramethylbenzidine (54827-17-7)	
Bioaccumulative potential	No bioaccumulation data available.

Preservative	
Partition coefficient n-octanol/water (Log Pow)	-2.54 (Estimated value)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

K-Blue® Advanced Plus TMB Substrate	
Mobility in soil	No additional information available

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

Dimethyl sulfoxide (67-68-5)	
Surface tension	43.5 mN/m (20 °C, 100 vol %)
Partition coefficient n-octanol/water (Log Pow)	-1.4 (Experimental value, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.64 (log Koc, SRC PCKOCWIN v1.66, Calculated value)
Ecology - soil	Highly mobile in soil.

Buffer salts	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	-1.8 – -1.6 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

Buffer salts	
Partition coefficient n-octanol/water (Log Pow)	-2.31 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.34 – 1.87 (log Koc, QSAR)
Ecology - soil	Highly mobile in soil.

Peroxide	
Partition coefficient n-octanol/water (Log Pow)	0.09 (QSAR, 25 °C)

Preservative	
Partition coefficient n-octanol/water (Log Pow)	-2.54 (Estimated value)

12.5. Other adverse effects

Ozone : Not classified

Other adverse effects : No additional information available

SECTION 13: Disposal considerations

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.
Sewage disposal recommendations	:	Disposal must be done according to official regulations.
Waste treatment methods	:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	:	Disposal must be done according to official regulations.
Additional information	:	Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

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

14.6. Special precautions for user

UN RTDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Priority Chemical List (PCL) and Chemical Control Orders (CCO)		
Initial List of Single Substances and Compounds Covered under Chemical Control Order (CCO) and Priority Chemical List (PCL) DENR Administrative Order 2015-09	Not applicable	
Priority Chemical List DENR Administrative Order 2005-27	Not applicable	
Chemical Control Orders	Not applicable	

Priority Chemical List (PCL) and Chemical Control Orders (CCO)		
Chemical Control Order for Ozone Depleting Substances	Not applicable	

Others		
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Applicable	CRAON 17-502 (7732-18-5) DIMETHYLSULFOXIDE (67-68-5) Buffer salts Peroxide Preservative
Controlled Chemical for Manufacture of Explosives or Explosives Ingredients Presidential Decree No.1866	Not applicable	
Comprehensive Dangerous Drugs Act of 2002	Not applicable	
Fertilizers and Pesticides Regulation (Decree No. 1144)	Not applicable	
Food Additives Regulation	Not applicable	
Management of Hazardous Waste (Republic Act No. 6969)	Not applicable	
Philippines Clean Air Act	Not applicable	
High Volume Chemicals List	Applicable	Tetramethylbezidine (54827-17-7)

15.2. International regulations

No additional information available

SECTION 16: Other information

Version : 5.0
Issue date : 01/07/2025
Revision date : 18/06/2026
Supersedes : 01/06/2026

Safety Data Sheet (SDS), Philippines

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.

SECTION 1: Identification

1.1. Product identifier

Trade name : Red Stop Solution
Name : Red Stop Solution
Product code 301210

1.2. Other means of identification

Part Number(s) : 301210|301471|301473|301474|301475|301476|700006516

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Laboratory chemicals,Scientific research and development

1.4. Details of the supplier of the safety data sheet

Manufacturer
Neogen Corporation
620 Lesher Place Lansing 48912 Michigan United States of America
T 800.234.5333
sds@neogen.com - https://www.neogen.com/

1.5. Emergency telephone 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: Hazards identification

2.1. Classification of the substance or mixture

Not classified

2.2. Label elements

No additional information available

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS PH classification
Water	CAS-No.: 7732-18-5	> 98	Not classified
Buffer salts	-	≥0.5 -< 2	Not classified
Buffer salts	-	≥ 0.1 – < 0.5	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT RE 1, H372

Name	Product identifier	%	GHS PH classification
Preservative	-	< 0.1	Not classified
Preservative	-	< 0.1	Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373
Buffer salts	-	< 0.1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1, H314 Eye Dam. 1, H318 STOT RE 2, H373

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice.
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.
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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : None under normal conditions.

4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.
Reactivity : The product is non-reactive under normal conditions of use, storage and transport.
General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

5.3. Advice for firefighters

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.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area.

6.1.2. 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.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : 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 : Keep cool. Protect from sunlight.
Packaging materials : Always store product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Buffer salts	
Philippines - Occupational Exposure Limits	
OEL TWA	1 mg/m³
Regulatory reference	Occupational Safety And Health Standards Philippines

Exposure limit values of other components

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Personal protective equipment

Personal protective equipment:
Wear recommended personal protective equipment.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Aqueous solution.

Color : Red
Odor : Odorless

Odor threshold : No data available
pH : 8.7
Relative evaporation rate (butyl acetate=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 : Non flammable
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 Kow) : No data available
Viscosity, kinematic : No data available
Explosion limits : No data available
Lower explosive limit (LEL) : No data available
Upper explosive limit (UEL) : No data available

9.2. Other information

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

SECTION 11: Toxicological information

11.1. Acute toxicity

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

Water (7732-18-5)	
LD50 oral rat	90000 mg/kg

Buffer salts	
LD50 oral rat	> 3980 mg/kg body weight (Rat, Experimental value, 20 % aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 Inhalation - Rat	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20 % aqueous solution, Inhalation (aerosol))
LC50 Inhalation - Rat (Dust/Mist)	> 10.5 mg/l Source: Corporate Solution From Thomson Micromedex

Buffer salts	
LD50 oral rat	223 mg/kg body weight (EPA OPPTS 870.1100: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 oral	69 mg/kg
LD50 dermal rat	> 2000 mg/kg body weight (EPA OPPTS 870.1200: Acute Dermal Toxicity, Rat, Experimental value, Dermal)
LC50 Inhalation - Rat	1 mg/l/4h

Buffer salts	
LD50 oral rat	1530 mg/kg
LD50 oral	2000 mg/kg
LD50 dermal rabbit	2000 mg/kg
LD50 dermal	1071 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	0.9615 mg/l/4h

Preservative	
LD50 oral rat	2800 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Anhydrous form, Oral)

Skin corrosion/irritation : Not classified
pH: 8.7
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Buffer salts	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified

Buffer salts	
LOAEL (oral,rat,90 days)	≈ 4 mg/kg body weight Animal: rat, Guideline: other:
NOAEL (oral,rat,90 days)	≈ 25 mg/kg body weight Animal: rat, Guideline: other:
Specific target organ toxicity – repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Buffer salts	
NOAEL (oral,rat,28 days)	250 mg/kg bw/day
NOAEL (oral,rat,90 days)	338 mg/kg bw/day
Specific target organ toxicity – repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Preservative	
Specific target organ toxicity – repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

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

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

Buffer salts	
LC50 - Fish [1]	5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
LOEC (chronic)	441 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'
NOEC (chronic)	314 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'

Buffer salts	
LC50 - Fish [1]	107.5 ppm (US EPA, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Fluorine ion)
LC50 - Fish [2]	165 mg/l Test organisms (species): other:
EC50 - Crustacea [1]	97 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Fluorine ion)
EC50 72h - Algae [1]	850 mg/l Source: NCIS; Toxic Substances Information Report
EC50 96h - Algae [1]	43 mg/l (Scenedesmus sp., Static system, Experimental value, Fluorine ion)
ErC50 algae	> 100 mg/l
NOEC (chronic)	14.1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	4 mg/l
NOEC chronic crustacea	8.2 mg/l
BCF - Fish [1]	53 – 58 (Pisces, Fresh water, Literature study, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-0.77 Source: EPISUITE

Buffer salts	
LC50 - Fish [1]	75.1 mg/l
EC50 - Crustacea [1]	> 376 mg/l
EC50 72h - Algae [1]	77.9 mg/l
NOEC chronic fish	40 mg/l
NOEC chronic crustacea	1.02 mg/l

Preservative	
LC50 - Fish [1]	705 mg/l (US EPA, 96 h, Lepomis macrochirus, Static system, Fresh water, Read-across, Anhydrous form)
EC50 - Crustacea [1]	140 mg/l (DIN 38412-11, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Anhydrous form)
ErC50 algae	> 100 mg/l (EU Method C.3, 72 h, Scenedesmus subspicatus, Static system, Fresh water, Read-across, Anhydrous form)
BCF - Fish [1]	1.8 (Other, 28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Read-across, Anhydrous form)
Partition coefficient n-octanol/water (Log Pow)	-4.3 (Experimental value, Equivalent or similar to OECD 107, 25 °C)

12.2. Persistence and degradability

Red Stop Solution	
Persistence and degradability	Not rapidly degradable

Water (7732-18-5)	
Persistence and degradability	Not rapidly degradable

Buffer salts	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Buffer salts	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Preservative	
Persistence and degradability	Not rapidly degradable

Buffer salts	
Persistence and degradability	Biodegradability: not applicable.

Preservative	
Persistence and degradability	Not readily biodegradable in the soil, Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.01 g O_2/g substance

12.3. Bioaccumulative potential

Red Stop Solution	
Bioaccumulative potential	No additional information available

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

Buffer salts	
Bioaccumulative potential	Not bioaccumulative.

Buffer salts	
BCF - Fish [1]	53 – 58 (Pisces, Fresh water, Literature study, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-0.77 Source: EPISUITE
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Buffer salts	
Bioaccumulative potential	No test data of component(s) available.

Preservative	
BCF - Fish [1]	1.8 (Other, 28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Read-across, Anhydrous form)
Partition coefficient n-octanol/water (Log Pow)	-4.3 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Red Stop Solution	
Mobility in soil	No additional information available

Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.38

Buffer salts	
Surface tension	73.03 mN/m (23 °C, 14.5 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

Buffer salts	
Partition coefficient n-octanol/water (Log Pow)	-0.77 Source: EPISUITE
Ecology - soil	Adsorbs into the soil. Toxic to flora.

Buffer salts	
Ecology - soil	Highly mobile in soil.

Preservative	
Mobility in soil	312.7 Source: EPISUITE
Partition coefficient n-octanol/water (Log Pow)	-4.3 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

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.

Sewage disposal recommendations	:	Disposal must be done according to official regulations.
Waste treatment methods	:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	:	Disposal must be done according to official regulations.
Additional information	:	Do not re-use empty containers.

SECTION 14: Transport information

In accordance with IMDG / IATA / UN RTDG

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

14.6. Special precautions for user

UN RTDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Priority Chemical List (PCL) and Chemical Control Orders (CCO)		
Initial List of Single Substances and Compounds Covered under Chemical Control Order (CCO) and Priority Chemical List (PCL) DENR Administrative Order 2015-09	Not applicable	
Priority Chemical List DENR Administrative Order 2005-27	Not applicable	
Chemical Control Orders	Not applicable	
Chemical Control Order for Ozone Depleting Substances	Not applicable	

Others		
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Applicable	CRAON 17-502 (7732-18-5) Buffer salts Preservative
Controlled Chemical for Manufacture of Explosives or Explosives Ingredients Presidential Decree No.1866	Not applicable	
Comprehensive Dangerous Drugs Act of 2002	Not applicable	
Fertilizers and Pesticides Regulation (Decree No. 1144)	Not applicable	
Food Additives Regulation	Not applicable	
Management of Hazardous Waste (Republic Act No. 6969)	Applicable	Buffer salts
Philippines Clean Air Act	Not applicable	
High Volume Chemicals List	Applicable	Buffer salts

15.2. International regulations

No additional information available

SECTION 16: Other information

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Safety Data Sheet (SDS), Philippines

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.