

Safety Data Sheet

HydroBlue® 90

Revision date : 2016/03/10

Version: 2.0

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(30667829/SDS_GEN_CA/EN)

1. Identification

Product identifier used on the label

HydroBlue® 90

Recommended use of the chemical and restriction on use

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF Canada Inc.

100 Milverton Drive

Mississauga, ON L5R 4H1, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

CANUTEC (reverse charges): (613) 996-6666

BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

Chemical family: stabilizing agents

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

Self-heat.	1	Self-heating substances and mixtures
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute

Label elements

Pictogram:

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Signal Word:
Danger

Hazard Statement:

H251	Self-heating: may catch fire.
H319	Causes serious eye irritation.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P280	Wear protective gloves and eye/face protection.
P273	Avoid release to the environment.
P235 + P410	Keep cool. Protect from sunlight.
P264	Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.

Precautionary Statements (Storage):

P407	Maintain air gap between stacks/pallets.
P420	Store away from other materials.
P413	Store bulk masses greater than 1,000 kg/2,205 lbs at temperatures not exceeding 25 °C/77 °F.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
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Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered. If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

Labeling of special preparations (GHS):

Contact with acids liberates toxic gas.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
497-19-8	>= 1.0 - < 7.0%	sodium carbonate
7681-57-4	>= 3.0 - < 7.0%	Sodium metabisulfite
7757-83-7	>= 0.3 - < 5.0%	sodium sulphite
7775-14-6	>= 75.0 - <= 100.0%	sodium dithionite

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4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

After inhalation of decomposition products, remove the affected person to a source of fresh air and keep calm. Provide medical aid.

If on skin:

Wash affected areas with water for at least 15 minutes. Immediate medical attention required.

If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open. Seek medical attention.

If swallowed:

Rinse mouth immediately and then drink plenty of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Hazards: Respiratory sensitization may result in allergic (asthma-like) signs in the lower respiratory tract including wheezing, shortness of breath and difficulty breathing, the onset of which may be delayed.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

Water in copious quantities

Unsuitable extinguishing media for safety reasons:

water spray

Additional information:

Self inflammation possible by spray waters or water in small quantities.

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

Sulphur dioxide,

The substances/groups of substances mentioned can be released in case of fire.

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Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with the skin, eyes and clothing. Use breathing apparatus if exposed to vapours/dust/aerosol.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water.

Methods and material for containment and cleaning up

For small amounts: Pick up in dry form. Dispose of absorbed material in accordance with regulations. For large amounts: Pick up in dry form. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Closed containers should only be opened in well-ventilated areas. Do not open warm or swollen product containers. Remove persons to safety and alert fire brigade.

Protection against fire and explosion:

The product is liable to self-heating but not explosive.

Conditions for safe storage, including any incompatibilities

Segregate from acids. Segregate from oxidants.

Further information on storage conditions: Protect against moisture. Containers should be stored tightly sealed in a dry place. Keep away from heat.

The packed product is not damaged by low temperatures or by frost.

Protect from temperatures above: 50 °C

The packed product must be protected against exceeding the indicated temperature.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Sodium metabisulfite	OSHA PEL	TWA value 5 mg/m ³ ;
	ACGIH TLV	TWA value 5 mg/m ³ ;

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

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Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:

Chemical resistant protective gloves, PVC-coated gloves, butyl rubber

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Avoid contact with the skin, eyes and clothing. Do not breathe dust. Wearing of closed work clothing is recommended. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	powder
Odour:	pungent odour
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	white
pH value:	5.5 - 8.5 (50 g/l)
decomposition point:	> 80 °C Thermal decomposition above the indicated temperature is possible.
Boiling point:	The substance / product decomposes therefore not determined.
Flash point:	not applicable
Flammability:	Risk of spontaneous ignition. (other)
Flammability of Aerosol Products:	not applicable, the product does not form flammable aerosoles
Lower explosion limit:	For solids not relevant for classification and labelling.
Upper explosion limit:	For solids not relevant for classification and labelling.
Vapour pressure:	The substance / product decomposes therefore not determined.
Relative density:	2.5 (20 °C)
Bulk density:	approx. 1,000 kg/m ³
Vapour density:	The product is a non-volatile solid.
Partitioning coefficient n- octanol/water (log Pow):	not applicable
Self-ignition temperature:	> 80 °C
Thermal decomposition:	80 °C Thermal decomposition above the indicated temperature is possible.
Viscosity, dynamic:	not applicable
Viscosity, kinematic:	not applicable, the product is a solid

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Solubility in water:	> 150 g/l (20 °C)
Evaporation rate:	slow decomposition The product is a non-volatile solid.

10. Stability and Reactivity

Reactivity

Corrosion to metals:
Corrosive effects to metal are not anticipated.

Minimum ignition energy:
1 bar, Grain size distribution: 30 - 150 µm (VDI 2263, sheet 1, 2.1.2)
The product is not capable of a dust explosion.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Reacts with acids. Reacts with oxidizing agents. Reacts with damp air. Self inflammation possible by spray waters or water in small quantities. On contact with water, gaseous decomposition products are formed, which cause build-up of pressure in tightly closed containers.

Conditions to avoid

> 65 degrees Celsius
Avoid humidity.

Incompatible materials

acids, oxidizing agents

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: Sulphur dioxide

Thermal decomposition:
80 °C
Thermal decomposition above the indicated temperature is possible.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of moderate toxicity after single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Oral

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Type of value: LD50

Species: rat (male/female)

Value: approx. 2,500 mg/kg (BASF-Test)

The European Union (EU) has classified this substance as 'harmful'.

Inhalation

Type of value: LC50

Species: rat (male/female)

Value: > 5.5 mg/l (OECD Guideline 403)

Exposure time: 4 h

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Dermal

Type of value: LD50

Species: rat (male/female)

Value: > 2,000 mg/kg (OECD Guideline 402)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Eye contact causes irritation.

Skin

Species: rabbit

Result: non-irritant

Method: BASF-Test

Sensitization

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: Non-sensitizing.

Method: OECD Guideline 429

Aspiration Hazard

not applicable

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No known chronic effects.

Genetic toxicity

Assessment of mutagenicity: Most of the results from the available studies show no evidence of a mutagenic effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity: In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish

LC50 (96 h) 62.3 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

Nominal concentration.

Aquatic invertebrates

EC50 (48 h) 98.3 mg/l, *Daphnia magna* (Directive 79/831/EEC, static)

Nominal concentration.

Aquatic plants

EC50 (72 h) 206 mg/l (growth rate), *Scenedesmus subspicatus* (DIN 38412 Part 9, static)

Nominal concentration.

Chronic toxicity to fish

No observed effect concentration (34 d) \geq 316 mg/l, *Brachydanio rerio* (OECD Guideline 210, Flow through.)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) $>$ 10 mg/l, *Daphnia magna* (semistatic)

Nominal concentration.

Assessment of terrestrial toxicity

Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

OECD Guideline 209 aquatic

activated sludge of a predominantly domestic sewage/EC20 (3 h): 120.5 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Inorganic product which cannot be eliminated from water by biological purification processes.

Study scientifically not justified.

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Assessment of stability in water

In contact with water the substance will hydrolyse rapidly.

Information on Stability in Water (Hydrolysis)

$t_{1/2}$ 1.5 h (50 °C, pH value 8.5), (Directive 84/449/EEC, C.10)

Bioaccumulative potential

Assessment bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential

Study scientifically not justified.

Mobility in soil

Assessment transport between environmental compartments

Adsorption to solid soil phase is not expected.

Additional information

Sum parameter

Chemical oxygen demand (COD): approx. 210 mg/g

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Other ecotoxicological advice:

Do not allow to enter soil, waterways or waste water channels. Higher concentrations of the substance may cause a strong chemical oxygen consumption in biological sewage-treatment plants and/or waterways.

13. Disposal considerations

Waste disposal of substance:

Dispose of in a licensed facility. Observe all local regulations.

Container disposal:

Do not reuse empty containers.

14. Transport Information

Land transport

TDG

Hazard class:	4.2
Packing group:	II
ID number:	UN 1384
Hazard label:	4.2
Proper shipping name:	SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

Sea transport

IMDG

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Hazard class: 4.2
Packing group: II
ID number: UN 1384
Hazard label: 4.2
Marine pollutant: NO
Proper shipping name: SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

Air transport

IATA/ICAO

Hazard class: 4.2
Packing group: II
ID number: UN 1384
Hazard label: 4.2
Proper shipping name: SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released / listed

According to Controlled Products Regulations (CPR) (SOR/88-66)

WHMIS classification:

D2B: Materials Causing Other Toxic Effects - Toxic material

F: Dangerously reactive material

B6: Reactive Flammable Material



Assessment of the hazard classes according to UN GHS criteria (most recent version):

Aquatic Acute	3	Hazardous to the aquatic environment - acute
Skin Corr./Irrit.	3	Skin corrosion/irritation
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Self-heat.	1	Self-heating substances and mixtures
Acute Tox.	5 (oral)	Acute toxicity

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2016/03/10

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our

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operations on society and the environment during production, storage, transport, use and disposal of our products.

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