

1 - IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND THE COMPANY / UNDERTAKING

1.1 Product identifier

Type of chemical: Substance

Trade name of the product: **BH1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant Identified Uses

Main use category: Industrial use, Professional use

Spec . industrial / professional use Dispersive use

Industrial Category: IC2 - Chemical Industry: Basic Chemical, IC3 - Chemical Industry: Synthetic Chemicals, IC5 - Personal / Private Use

1.2.2. Uses advised against

No additional information available

1.3. Information on the supplier of the safety data sheet

BAUMER BOURDON HAENNI

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41100 Vendôme

tel: 0254737475

2 - HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

Unclassified

2.1.2. Classification according to Directive 67/546 / EEC or 1999/45 / EC

Unclassified

2.1.3. Adverse physicochemical effects, for human health and for the environment

No additional information available

2.2. Label elements

2.2.1. Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Labeling not applicable

2.3. Other hazards

No additional information available

3 - COMPOSITION / INFORMATION ON COMPONENTS

3.1. Substance

Type of substance: bi- constituent

Name	Product identifier	%	Classification according to Directive 67/548 / EEC
Glycerol	Case : 56 -81-5 / EC : 200-289-5 / REACH : 1907/2006 / EC Annex V.9	86	Not ranked
Demineralized Water	Case : 77 32-18-5 / REACH : N / A	14	Not ranked

Text of R and H phrases: see section 16

4 - FIRST AID

4.1. Description of first aid

First Aid - General: Monitor vital functions. Unconscious victim: maintain free airways. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: resuscitate the victim. Conscious victim with respiratory problems: semi-sitting position. Shock: preferably on the back, legs slightly raised. Vomiting: prevent asphyxiation / respiratory pneumonia. Prevent cooling by covering the victim (do not warm up). Monitor the victim constantly. Provide psychological help. Keep the victim calm, avoid any effort. Depending on the condition: doctor / hospital.

First-aid measures after inhalation: Take victim to fresh air. Respiratory disorders: consult doctor / medical service.

First-aid measures after skin contact: Rinse with water. Soap can be used. Consult a physician if irritation persists.

First-aid measures after eye contact: Rinse with water. Do not use neutralizing products. Consult an ophthalmologist if irritation persists.

First-aid measures after ingestion: Rinse mouth with water. Immediately after ingestion: Drink plenty of water. Consult the poison control center. Consult a doctor / medical service if you feel unwell. Ingestion in high doses: immediate hospitalization.

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

Symptoms / injuries after inhalation: IF CHOKED: Irritation of the respiratory system. Irritation of the nasal mucous membranes.

Symptoms / injuries after eye contact: Redness of the eye tissue. Non-irritating

Symptoms / injuries after ingestion: Nausea, vomiting, diarrhea. AFTER LARGE QUANTITY INJURY: headache, dehydration, disturbances of cardiac rhythm, change in blood level / blood composition, decreased renal function.

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

No additional information available.

5 - FIRE FIGHTING MEASURES

5.1. Extinguishing media

CO₂, extinguishing powder or powdered. Fight major fires with an alcohol resistant foam. Sand.

5.2. Special hazards arising from the substance or mixture

Fire hazard: DIRECT FIRE HAZARD: Combustible. INDIRECT FIRE HAZARD: At temperature > flash point: increased risk of fire / explosion.

Danger of explosion: No danger of direct explosion.

Reactivity: Decomposes following rise in temperature: release of toxic / corrosive / combustible gases / vapors (acrolein). Formation of CO and CO₂ in case of combustion. May polymerize following a rise in temperature. Reacts violently with oxidants (strong): Risk of fire / explosion (increased). Reacts with (some) acids: risk of fire / explosion (increased).

5.3. Advice to firefighters

Avoid breathing dust / fume / gas / mist / vapors / spray.

Special protective equipment: Wear breathing apparatus independent ambient air.

6 - ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General measures: delimit the danger zone. Warm up: close doors and windows by neighborhood. In case of fire / heat: consider evacuation. Clean contaminated clothing.

6.1.1. For non-rescuers

No additional information available

6.1.2. For the rescuers

No additional information available

6.2. Precautions for the protection of the environment

Do not discharge into the sewer or into the natural environment

6.3. Methods and material for containment and cleaning

Collect liquids using a product absorbent (sand, kieselguhr, acid neutralizer, universal binder, sawdust). Dispose of material collected in accordance with regulation.

6.4. Reference to other sections

No additional information available

7 - HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling temperature: $\geq 10^{\circ}\text{C}$ above melting point.

7.2. Conditions for safe storage, including any incompatibilities

Maximum storage time: <12 months - Hygroscopic

Prohibition of storage in common: KEEP SUBSTANCE AWAY from sources of heat, oxidizing agents, (strong) acids, (strong) bases

Storage location: Keep container in a well-ventilated place. Store at room temperature. Keep away from direct sunlight. Conform to the regulations.

Special packing regulations: SPECIAL REQUIREMENTS: reclosable, dry, clean, properly labeled, in accordance with regulations. Put the fragile packaging in a solid container.

Packaging materials: steel, aluminum, iron, synthetic material, glass.

7.3. Specific end use (s)

No additional information available

8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control settings

56-81-5 glycerol : VME (long-term value): $10\text{ mg} / \text{m}^3$

8.2. Exposure controls

Personal protective equipment: Gloves, Safety glasses, Protective clothing. Mists: anti-aerosol mask with filter type P1. In case of overheating: gas mask with filter type A.



Protective clothing - material selection: GIVE GOOD RESISTANCE: natural rubber, neoprene, PVC, viton. OFFER LESS RESISTANCE: styrene-butadiene rubber. GIVE POOR RESISTANCE: polyurethane

9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on essential physical and chemical properties

State of aggregation (20°C): Liquid Appearance (room temperature): According to the ambient temperature : solid or liquid Color: Colorless to light yellow Odor: Odorless pH: No data available Melting point: 18°C , Point boiling point: 290°C , Flash point: ca. 177°C (Cleveland Open Cup) Critical temperature : 452°C , Autoignition temperature: 370°C , Decomposition temperature: 290°C Vapor pressure at 20°C : ca. $<0.01\text{ hPa}$ Vapor pressure at 50°C : 0.0033 hPa Relative density of vapor at 20°C : 3.17 Relative density: No data available Relative density of saturation vapor / air mixture : 1.0 Density: ca. $1261.9\text{ kg} / \text{m}^3$ (20°C) - ca. $1248.7\text{ kg} / \text{m}^3$ (40°C) - ca. $1208.9\text{ kg} / \text{m}^3$ (100°C) Solubility: Water: completely, Ethanol: completely, Ether: $0.2\text{g} / 100\text{ml}$ Log Pow : $-1.76 / 2.6$ Viscosity, dynamic: ca. $1.15\text{ Pa}\cdot\text{s}$ (20°C)

9.2. Other information

Conductivity: $6400000\text{ pS} / \text{m}$

Softening point: $<20^{\circ}\text{C}$

Other properties: soluble in water, insoluble in oils / greases, little volatile, gas / vapor heavier than air at 20°C , hygroscopic, the material has a neutral, clear, syrupy reaction.

10- STABILITY AND REACTIVITY

10.1. Reactivity

Decomposes following a rise in temperature: release of toxic / corrosive / combustible gases / vapors (acrolein). Formation of CO and CO₂ in case of combustion. May polymerize following a rise in temperature. Reacts violently with oxidants (strong): Risk of fire / explosion (increased). Reacts with (some) acids: risk of fire / explosion (increased).

10.2. Chemical stability

Hygroscopic.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available.

10.5. Incompatible materials

No additional information available.

10.6. Hazardous decomposition products

Heating / combustion: release of toxic gases / vapors / fuels (acrolein).

11 - TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity: Not classified

Oral LD50 rat: 12600 mg / kg bw (experimental value) LD50 dermal rat: 21900 mg / kg bw (experimental value) LC50 inhalation rat:> 2.75 mg / l / 4h (experimental value) ATE CLP (oral): 12600.000 mg / kg body weight

Skin corrosion / irritation: not classified

Serious eye damage / eye irritation: not classified

Respiratory or skin sensitization: not classified

Germ cell mutagenicity: not classified

Carcinogenicity: not classified

Reproductive toxicity: not classified

Specific target organ toxicity (single exposure): not classified

Specific target organ toxicity (repeated exposure): not classified

Aspiration hazard: not classified

12 - ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - general: No additional information available.

Ecology - air: TA-Luft Klasse 5.2.5

Ecology - water: Lowly pollutes water (surface water)

Not harmful to fish (LC50 (96h)> 1000 mg / l)

Not harmful to aquatic organisms (EC50> 1000mg / l)

Not harmful to algae

Not harmful to bacteria

Bioaccumulation: not applicable

Slows the digestion of activated sludge at> 1000mg / l 50%

Readily biodegradable in water (OECD 301D: 82%, 20 days)

in water (OECD 301D: 82%, 20 days) LC50 fish 1	54000 mg / l (96h, SALMO GAIARDNERI / ONCORHYNCHUS MYKISS)
LC50 other aquatic organisms 1	> 1000 mg / l (96h)
LC50 other aquatic organisms 1	> 1000 mg / l (BACTERIA, ACTIVATED SLUDGE)
LC50 fish 2	> 1000 mg / l (96h, PISCES)
EC50 daphnia 2	> 10000 mg / l (24h, DAPHNIA MAGNA, LOCOMOTION)
TLM fish 1	> 1000 ppm (96h, PISCES)
TLM other aquatic organisms 1	> 1000 ppm (96h)
Toxic threshold other aquatic organisms 1	2900 mg / l (192h, MICROCYSTIS AERUGINOSA, TOXICITY TEST)
Toxic threshold other aquatic organisms 2	> 10000 mg / l (16h, PSEUDOMONAS PUTIDA, TOXICITY TEST)
Toxic algae threshold 1	> 10000 mg / l (168h, SCENEDESMUS QUADRICAUDA, TOXICITY TEST)

SAFETY DATA SHEET

BH1 - GLYCERIN 86% + WATER 14%

Revision Date: 13/07/2016 According to (CE) 1907/2006

12.2. Persistence and degradability

Biochemical Oxygen Demand (BOD)	0.87 g O ₂ / g material
Biochemical Oxygen Demand (COD)	1.16 g O ₂ / g material (ISO 15705)
ThOD	1.217 g O ₂ / g material
BOD (% of DThO)	71% ThOD

12.3. Bioaccumulative potential Log Pow : -1.76 / 2.6 **12.4. Mobility in soil** Surface tension: 0.063 N / m (20 ° C)
Soil ecology: No data available on biodegradability in soil **12.5. Results of PBT and vPvB assessment** No additional information available **12.6. Other adverse effects** Other information: No additional information available.

13 - CONSIDERATIONS RELATING TO ELIMINATION

13.1. Waste treatment methods

Evacuation: Absorb liquid spilled in materials such as: sand, earth, vermiculite, or kieselguhr, crushed limestone. Put the absorbed product into a closing container (suitable material from the container: see "Handling"). Rinse leftovers with plenty of water. Clean equipment and clothing after work.

Regional legislation (waste): No additional information available.

Ecology - waste: LCWA (The Netherlands): KGA category 03. Recycle by distillation. Dispose of in an approved incinerator equipped with a post-burner and a flue gas scrubber. Do not discharge into surface water.

European List of Waste (EWC) Code: No additional information available.

14 - TRANSPORT INFORMATION

In accordance with the requirements of ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Not applicable

14.3. Class (es) of danger for transport Not regulated **14.4. Packing group (ADR-IMDG-IATA)** Not regulated

14.5. Environmental hazards Other information: no additional information available. **14.6. Special precautions to be taken by the user**

14.6.1. Transport by land Transport regulations (ADR): Not subject Transport regulations (RID): Not subject State during transport (ADR-RID) Road and rail transport: Not subject to ADR-RID **14.6.2.** Maritime transport Transport regulations (IMDG) Not submitted **14.6.3.** Air transport Transport regulations (IATA) Not subject

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

Not applicable

15 - REGULATORY INFORMATION

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

15.1.1. EU regulations **Directive 2012/18 / EU Designated hazardous substances –**

ANNEX1: The substance is not included . No restrictions according to REACH Annex XVII Not on the REACH candidate list Not listed in Annex XIV of REACH No chemical safety assessment required: the substance is not classified and exempted EC No 1907/2006 (REACH) according to Annex V, point 9

15.1.2. National regulations Chemical Inventory: Listed in AICS, DSL, ECL, ECST, ENCS, IECS, ISRAEL NZIoC, PICCS, TSCA, CSNN, inventories EC Swiss Chemicals Ordinance (SR 813.11): This material is not subject to the registration requirement in accordance with Art.61 of the Ordinance on Chemicals (ChemO) Class WGK: 1 (low risk for the aquatic environment) CFR Title 21 - Prohibited for human consumption: Contains OPS This product is free from any substance prohibited from use in human food .

Note: The name of the substance and the CAS numbers that are used for this product in the exposed inventories may deviate from the information in section 3.

16 - OTHER DATA

Legend of inventories Chemicals :

AICS = Australian Inventory of Chemical Substances

DSL = Canadian Domestic Substances List

ECL = Korean Existing Chemical List

ECST = Existing Chemical Substances Inventory of Taiwan

ENCS = Japanese Existing and New Chemicals Substances List

IECS = Inventory of Existing Chemical Substances in China

ISRAEL = Proposed Israel Hazardous Substances List, 2007

NZIoC = New Zealand Inventory of Chemicals

PICCS = Philippine Inventory of Chemicals and Chemical Substances

TSCA = USA Toxic Substances Control Act

Inventories EC = European Community Inventories of Chemicals (EINECS / ELINCS / NLP / REACH)

Acronyms and abbreviations:

RID: International Regulations concerning the Carriage of Dangerous Goods by Rail

ADR: European Agreement on the Transport of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous

IATA Goods : International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (Division of the American Chemical Society)

LC50: Lethal concentration , 50 percent

LD50: Lethal dose , 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB : very Persistent and very bioaccumulative

Modified sections of the SDS: 1 - 3 - 5 - 6 - 8 - 9 - 11 - 15 - 16

This information is based on our current knowledge and describes the product for health, safety and environmental purposes only. They do not constitute a guarantee as to the properties products and do not give rise to a contractual legal relationship