



Be Right™

# SAFETY DATA SHEET

Issue Date 07-Jun-2021

Revision Date 26-Jan-2024

Version 2.1

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## 1. IDENTIFICATION

### Product identifier

**Product Name** HNB Dilution Solvent

### Other means of identification

**Product Code(s)** 2305042

**Safety data sheet number** M01015

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

**Recommended Use** Water Analysis. Laboratory reagent.

**Uses advised against** None.

**Restrictions on use** None.

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

#### **Emergency telephone number**

+1(303) 623-5716 - 24 Hour Service

## 2. HAZARDS IDENTIFICATION

### Classification

#### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Specific target organ toxicity (repeated exposure)	Category 2

#### **Hazards not otherwise classified (HNOC)**

Not applicable

### Label elements

#### **Signal word**

Warning



### **Hazard statements**

EN / AGHS

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H302 - Harmful if swallowed  
H373 - May cause damage to organs through prolonged or repeated exposure

**Precautionary statements**

P264 - Wash face, hands and any exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P330 - Rinse mouth  
P501 - Dispose of contents/ container to an approved waste disposal plant  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P314 - Get medical advice/attention if you feel unwell

**Other Hazards Known**

Causes mild skin irritation

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

**Chemical Family** Mixture.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Ethylene glycol	107-21-1	30 - 40%	-

**4. FIRST AID MEASURES**

**Description of first aid measures**

**General advice** Show this safety data sheet to the doctor in attendance.  
**Inhalation** Remove to fresh air.  
**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.  
**Skin contact** Wash skin with soap and water.  
**Ingestion** Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** See Section 11 for additional Toxicological Information.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** Caution: Use of water spray when fighting fire may be inefficient.

<b>Specific hazards arising from the chemical</b>	No information available.
<b>Hazardous combustion products</b>	Carbon monoxide, Carbon dioxide.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

**U.S. Notice** Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental precautions** See Section 12 for additional ecological information.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

**Flammability class** Class IIIB

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Ethylene glycol CAS#: 107-21-1	STEL: 50 ppm vapor fraction STEL: 10 mg/m <sup>3</sup> inhalable particulate matter, aerosol only TWA: 25 ppm vapor fraction	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m <sup>3</sup>	NDF

**Appropriate engineering controls**

**Engineering Controls** Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hand Protection** Wear suitable gloves.

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** No special protective equipment required.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

**Thermal hazards** None under normal processing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state** Liquid  
**Appearance** viscous  
 aqueous solution  
**Color** colorless  
**Odor** sweet  
**Odor threshold** .1 ppm

**Property Values Remarks • Method**

**Molecular weight** No data available  
**pH** 5.8  
**Melting point / freezing point** -14 °C / 6.8 °F  
**Initial boiling point and boiling range** 104 °C / 219.2 °F  
**Evaporation rate** 0.9 (water = 1)  
**Vapor pressure** 21.002 mm Hg / 2.8 kPa at 25 °C / 77 °F  
**Relative vapor density** 0.76  
**Specific gravity - VALUE 1** 1.04  
**Partition coefficient** log K<sub>ow</sub> = -0.16

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**Soil Organic Carbon-Water Partition Coefficient**  $\log K_{oc} = -0.08$   
**Autoignition temperature** No data available  
**Decomposition temperature** No data available  
**Dynamic viscosity** 1.7 cP (mPa s) at 26.7 °C / 80.06 °F  
**Kinematic viscosity** 1.635 cSt (mm<sup>2</sup>/s) at 26.7 °C / 80.06 °F

#### Solubility(ies)

##### Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

##### Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F
Acetone	Soluble	> 1000 mg/L	25 °C / 77 °F
Glycerol	Soluble	> 1000 mg/L	25 °C / 77 °F
Pyridine	Soluble	> 1000 mg/L	25 °C / 77 °F
Ketones	Soluble	> 1000 mg/L	25 °C / 77 °F

#### Other information

##### Metal Corrosivity

**Steel Corrosion Rate** No data available  
**Aluminum Corrosion Rate** No data available

##### Volatile Organic Compounds (VOC) Content

See ingredients information below

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Ethylene glycol	107-21-1	No data available	X

##### Explosive properties

**Upper explosion limit** No data available  
**Lower explosion limit** No data available

##### Flammable properties

**Flash point** > 115 °C / 239 °F  
**Method** CC (closed cup)

##### Flammability Limit in Air

**Upper flammability limit:** No data available  
**Lower flammability limit:** No data available

##### Oxidizing properties

No data available.

##### Bulk density

No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

Not applicable.

### Chemical stability

Stable under normal conditions.

### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Possibility of hazardous reactions

None under normal processing.

### Hazardous polymerization

None under normal processing.

### Conditions to avoid

None known based on information supplied.

### Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

### Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

**Inhalation** No known effect based on information supplied.

**Eye contact** No known effect based on information supplied.

**Skin contact** No known effect based on information supplied.

**Ingestion** Harmful if swallowed.

**Symptoms** No information available.

### Acute toxicity

Harmful if swallowed

### Mixture

No data available.

### Ingredient Acute Toxicity Data

Test data reported below.

### Oral Exposure Route

### Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

### Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	1,561.50 mg/kg
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

**Skin corrosion/irritation**

Based on available data, the classification criteria are not met.

**Mixture**

No data available.

**Ingredient Skin Corrosion/Irritation Data**

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Ethylene glycol (30 - 40%) CAS#: 107-21-1	Open Irritation Test	Rabbit	555 mg	None reported	Mild skin irritant	RTECS

**Serious eye damage/irritation**

Based on available data, the classification criteria are not met.

**Mixture**

No data available.

**Ingredient Eye Damage/Eye Irritation Data**

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Ethylene glycol (30 - 40%) CAS#: 107-21-1	Standard Draize Test	Rabbit	500 mg	24 hours	Mild eye irritant	RTECS

**Respiratory or skin sensitization**

Based on available data, the classification criteria are not met.

**Mixture**

No data available.

**Ingredient Sensitization Data**

Test data reported below.

**Skin Sensitization Exposure Route**

Chemical name	Test method	Species	Results	Key literature references and sources for data
Ethylene glycol (30 - 40%) CAS#: 107-21-1	Based on human experience	Human	Not confirmed to be a skin sensitizer	IUCLID

**STOT - single exposure**

Based on available data, the classification criteria are not met.

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**Mixture**

No data available.

**Ingredient Specific Target Organ Toxicity Single Exposure Data**

Test data reported below.

**Oral Exposure Route**

**STOT - repeated exposure**

May cause damage to organs.

**Mixture**

No data available.

**Ingredient Specific Target Organ Toxicity Repeat Exposure Data**

Test data reported below.

**Oral Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Ethylene glycol (30 - 40%) CAS#: 107-21-1	Human TD <sub>Lo</sub>	768 mg/kg	None reported	<b>Gastrointestinal</b> Diarrhea <b>Brain and Coverings</b> Convulsions or effect on seizure threshold Coma	RTECS

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Mixture**

No data available.

**Ingredient Carcinogenicity Data**

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Ethylene glycol	107-21-1	-	-	-	-

**Legend**

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	Does not apply
<b>IARC (International Agency for Research on Cancer)</b>	Does not apply
<b>NTP (National Toxicology Program)</b>	Does not apply
<b>OSHA</b>	Does not apply

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

**Mixture invitro Data**

No data available.

**Substance invitro Data**

Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Ethylene glycol	DNA inhibition	Human lymphocyte	320 mmol/L	None reported	Positive test result for	RTECS



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(30 - 40%) CAS#: 107-21-1					mutagenicity	
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**Mixture in vivo Data**  
 No data available.

**Substance in vivo Data**  
 Test data reported below.

**Oral Exposure Route**

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Ethylene glycol (30 - 40%) CAS#: 107-21-1	Cytogenetic analysis	Rat	1200 mg/kg	None reported	Positive test result for mutagenicity	RTECS

**Reproductive toxicity**  
 Based on available data, the classification criteria are not met.

**Mixture**  
 No data available.

**Ingredient Reproductive Toxicity Data**  
 Test data reported below.

**Oral Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Ethylene glycol (30 - 40%) CAS#: 107-21-1	Mouse TD <sub>Lo</sub>	1700 mg/kg	None reported	<b>Effects on Newborn</b> Growth statistics (e.g. % reduced weight gain) <b>Specific Developmental Abnormalities</b> Hepatobiliary system Musculoskeletal system	RTECS

**Inhalation (Dust/Mist) Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Ethylene glycol (30 - 40%) CAS#: 107-21-1	Mouse TC <sub>Lo</sub>	1 mg/L	6 hours	<b>Effects on Embryo or Fetus</b> Fetotoxicity (except death e.g. stunted fetus) <b>Effects on Fertility</b> Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants)	RTECS

**Aspiration hazard**  
 Based on available data, the classification criteria are not met.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** Based on available data, the classification criteria are not met.

**Unknown aquatic toxicity** 0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

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**Mixture**

**Aquatic Acute Toxicity**  
No data available.

**Aquatic Chronic Toxicity**  
No data available.

**Substance**

**Aquatic Acute Toxicity**  
No data available.

**Aquatic Chronic Toxicity**  
No data available.

**Persistence and degradability**

**Mixture**  
No data available.

**Bioaccumulation**  
MATERIAL DOES NOT BIOACCUMULATE

**Mixture**  
No data available.

**Partition coefficient**  $\log K_{ow} = -0.16$

**Mobility**

**Soil Organic Carbon-Water Partition Coefficient**  $\log K_{oc} = -0.08$

**Other adverse effects**  
No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**Special instructions for disposal** Check with local municipal and state authorities and waste contractors for pertinent local information regarding the proper disposal of chemicals.

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**TDG** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**Note:** No special precautions necessary.

Additional information

**15. REGULATORY INFORMATION**

**National Inventories**

TSCA Complies  
 DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories**

EINECS/ELINCS Complies  
 ENCS Complies  
 IECSC Complies  
 KECL Complies  
 PICCS Complies  
 TCSI Complies  
 AICS Complies  
 NZIoC Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 TCSI - Taiwan Chemical Substances Inventory  
 AICS - Australian Inventory of Chemical Substances  
 NZIoC - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Ethylene glycol (CAS #: 107-21-1)	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard Yes  
 Chronic Health Hazard Yes  
 Fire hazard No  
 Sudden release of pressure hazard No  
 Reactive Hazard No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylene glycol 107-21-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

### US State Regulations

#### California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Ethylene glycol (CAS #: 107-21-1)	Developmental



**WARNING:** This product can expose you to chemicals including Ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm.

For more information, go to <http://www.P65Warnings.ca.gov>

#### U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethylene glycol 107-21-1	X	X	X

#### U.S. EPA Label Information

Chemical name	FIFRA	FDA
Ethylene glycol	180.0920	-

## 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

#### Special Comments

None

#### Additional information

#### Global Automotive Declarable Substance List (GADSL)

Chemical name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thersholds
Ethylene glycol 107-21-1	Declarable Substance (FI)	0.1 %

#### NFPA and HMIS Classifications

NFPA	Health hazards - 1	Flammability - 1	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 1*	Flammability - 1	Physical hazards - 0	Personal protection - X -1

#### Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
CDC	CDC (Center for Disease Control)
CEPA	CEPA (Canadian Environmental Protection Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)

ECHA	ECHA (The European Chemicals Agency)
EEA	EEA (European Environment Agency)
EPA	EPA (Environmental Protection Agency)
ERMA	ERMA (New Zealands Environmental Risk Management Authority)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
FDA	FDA (Food & Drug Administration)
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)
INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)
IUCLID	IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)
NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
NDF	no data
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEEN	PEEN (Pan European Ecological Network)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

**Prepared By** Hach Product Compliance Department

**Issue Date** 07-Jun-2021

**Revision Date** 26-Jan-2024

**Revision Note** None

**Disclaimer**

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE**

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**OBTAINED FROM THE USE THEREOF.**

**HACH COMPANY©2023**

**End of Safety Data Sheet**



Be Right™

# SAFETY DATA SHEET

Issue Date 12-Aug-2021

Revision Date 26-Jan-2024

Version 3.2

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## 1. IDENTIFICATION

**Product identifier**

**Product Name** HNB Powder

**Other means of identification**

**Product Code(s)** 2307355

**Safety data sheet number** M01011

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Laboratory reagent.

**Uses advised against** Consumer use.

**Restrictions on use** For Laboratory Use Only.

**Details of the supplier of the safety data sheet**

**Manufacturer Address**

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

**Emergency telephone number**

+1(303) 623-5716 - 24 Hour Service

## 2. HAZARDS IDENTIFICATION

**Classification**

**Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation

Category 1

**Hazards not otherwise classified (HNOC)**

Not applicable

**Label elements**

**Signal word**

Danger



**Hazard statements**

H318 - Causes serious eye damage

**Precautionary statements**

P280 - Wear protective gloves, protective clothing, eye protection, and face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor/physician

**Other Hazards Known**

None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

**Chemical Name** Hydroxy Naphthol Blue, Free Acid  
**Chemical Family** dyes.  
**Formula** C<sub>20</sub>H<sub>14</sub>N<sub>2</sub>O<sub>11</sub>S<sub>3</sub>  
**CAS No** 29120-26-1  
**Chemical nature** aqueous solution.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-	29120-26-1	100%	-

**4. FIRST AID MEASURES**

**Description of first aid measures**

**General advice** Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Inhalation** Remove to fresh air. Get medical attention immediately if symptoms occur.

**Eye contact** Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

**Skin contact** Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

**Self-protection of the first aider** Avoid contact with skin, eyes or clothing.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Burning sensation.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.



<b>Unsuitable Extinguishing Media</b>	Caution: Use of water spray when fighting fire may be inefficient.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Hazardous combustion products</b>	Carbon monoxide, Carbon dioxide. Sulfur oxides. Nitrogen oxides.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

**U.S. Notice** Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

**Flammability class** Not applicable

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**Appropriate engineering controls**

**Engineering Controls** Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hand Protection** Wear suitable gloves.

**Eye/face protection** Tight sealing safety goggles.

**Skin and body protection** Wear suitable protective clothing.

**General Hygiene Considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

**Thermal hazards** None under normal processing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Solid	<b>Color</b>	Blue-green
<b>Appearance</b>	crystalline	<b>Odor threshold</b>	No information available
<b>Odor</b>	Odorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Molecular weight</b>	554.54 g/mole	
<b>pH</b>	1.0	5% @ 20°C
<b>Melting point / freezing point</b>	> 300 °C / 572 °F	
<b>Initial boiling point and boiling range</b>	No data available	
<b>Evaporation rate</b>	Not applicable	
<b>Vapor pressure</b>	Not applicable	
<b>Relative vapor density</b>	No data available	
<b>Specific gravity - VALUE 1</b>	1.44	
<b>Partition coefficient</b>	log K <sub>ow</sub> = 0	
<b>Soil Organic Carbon-Water Partition Coefficient</b>	log K <sub>oc</sub> ~ 0	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>Dynamic viscosity</b>	Not applicable	

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**Kinematic viscosity** Not applicable

**Solubility(ies)**

**Water solubility**

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Completely soluble	44000 mg/L	20 °C / 68 °F

**Solubility in other solvents**

<u>Chemical Name</u>	<u>Solubility classification</u>	<u>Solubility</u>	<u>Solubility Temperature</u>
None reported	No information available	No data available	No information available
Acids	Slightly soluble	46 mg/L	20 °C / 68 °F

**Other information**

**Metal Corrosivity**

**Steel Corrosion Rate** < 2.54 mm/yr / < 0.1 in/yr  
**Aluminum Corrosion Rate** No data available

**Volatile Organic Compounds (VOC) Content**

This Product is by Weight 100% an Individual Pure Chemical Substance

<u>Chemical name</u>	<u>CAS No</u>	<u>Volatile organic compounds (VOC) content</u>	<u>CAA (Clean Air Act)</u>
2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthaleny)azo]-	29120-26-1	No data available	-

**Explosive properties**

**Upper explosion limit** No data available  
**Lower explosion limit** No data available

**Flammable properties**

**Flash point** Not applicable

**Flammability Limit in Air**

**Upper flammability limit:** No data available  
**Lower flammability limit:** No data available

**Oxidizing properties**

No data available.

**Bulk density**

No data available

**10. STABILITY AND REACTIVITY**

**Reactivity**

Not applicable.

**Chemical stability**

Stable under normal conditions.

**Explosion data**

Sensitivity to Mechanical Impact None.  
Sensitivity to Static Discharge None.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

None known based on information supplied.

**Incompatible materials**

Strong acids. Strong bases. Strong oxidizing agents.

**Hazardous decomposition products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

<b>Inhalation</b>	No known effect based on information supplied.
<b>Eye contact</b>	Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause irreversible damage to eyes.
<b>Skin contact</b>	May cause irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Symptoms</b>	Redness. Burning. May cause blindness.

**Acute toxicity**

Based on available data, the classification criteria are not met

**Mixture**

If available, see ingredient data below.

**Ingredient Acute Toxicity Data**

No data available.

**Unknown Acute Toxicity**

0% of the mixture consists of ingredient(s) of unknown toxicity.

**Acute Toxicity Estimations (ATE)**

Not applicable

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	No information available
<b>ATEmix (dermal)</b>	No information available
<b>ATEmix (inhalation-dust/mist)</b>	No information available
<b>ATEmix (inhalation-vapor)</b>	No information available
<b>ATEmix (inhalation-gas)</b>	No information available

**Skin corrosion/irritation**

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Based on available data, the classification criteria are not met.

**Mixture**

If available, see ingredient data below.

**Ingredient Skin Corrosion/Irritation Data**

No data available.

**Serious eye damage/irritation**

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

**Mixture**

If available, see ingredient data below.

**Ingredient Eye Damage/Eye Irritation Data**

No data available.

**Respiratory or skin sensitization**

Based on available data, the classification criteria are not met.

**Mixture**

If available, see ingredient data below.

**Ingredient Sensitization Data**

No data available.

**STOT - single exposure**

Based on available data, the classification criteria are not met.

**Mixture**

If available, see ingredient data below.

**Ingredient Specific Target Organ Toxicity Single Exposure Data**

No data available.

**STOT - repeated exposure**

Based on available data, the classification criteria are not met.

**Mixture**

If available, see ingredient data below.

**Ingredient Specific Target Organ Toxicity Repeat Exposure Data**

No data available.

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Mixture**

If available, see ingredient data below.

**Ingredient Carcinogenicity Data**

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[(2-hydroxy-4-sulfo-1-naphthalenyl)azo]-	29120-26-1	-	-	-	-

**Legend**

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
-------------------------------------------------------------------	----------------

IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

**Mixture invitro Data**

If available, see ingredient data below.

**Substance invitro Data**

No data available.

**Mixture invivo Data**

If available, see ingredient data below.

**Substance invivo Data**

No data available.

**Reproductive toxicity**

Based on available data, the classification criteria are not met.

**Mixture**

No data available.

**Ingredient Reproductive Toxicity Data**

No data available.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Based on available data, the classification criteria are not met.

**Unknown aquatic toxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

**Mixture**

**Aquatic Acute Toxicity**

If available, see ingredient data below.

**Aquatic Chronic Toxicity**

If available, see ingredient data below.

**Substance**

**Aquatic Acute Toxicity**

No data available.

**Aquatic Chronic Toxicity**

No data available.

**Persistence and degradability**

**Mixture**

No data available.

**Bioaccumulation**

MATERIAL DOES NOT BIOACCUMULATE

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**Mixture**

No data available.

**Partition coefficient**

log  $K_{ow}$  = 0

**Mobility**

**Soil Organic Carbon-Water Partition Coefficient**

log  $K_{oc}$  ~ 0

**Other adverse effects**

No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Waste from residues/unused products**

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging**

Do not reuse empty containers.

**US EPA Waste Number**

D002

**Special instructions for disposal**

Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.

### 14. TRANSPORT INFORMATION

**DOT**

Not regulated

**TDG**

Not regulated

**IATA**

Not regulated

**IMDG**

Not regulated

**Note:**

No special precautions necessary.

**Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods.

If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

### 15. REGULATORY INFORMATION

**National Inventories**

**TSCA**

Complies

**DSL/NDSL**

Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories**

**EINECS/ELINCS**

Complies

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<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>TCSI</b>	Complies
<b>AICS</b>	Complies
<b>NZIoC</b>	Complies

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**TCSI** - Taiwan Chemical Substances Inventory  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### US State Regulations

#### California Proposition 65

This product does not contain any Proposition 65 chemicals

**IMERC:** Not applicable

#### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations.

#### U.S. EPA Label Information

## 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

#### Special Comments

None

#### Additional information



**Global Automotive Declarable Substance List (GADSL)**

Not applicable

**NFPA and HMIS Classifications**

<b>NFPA</b>	<b>Health hazards - 3</b>	<b>Flammability - 0</b>	<b>Instability - 0</b>	<b>Physical and chemical properties -</b>
<b>HMIS</b>	<b>Health hazards - 3</b>	<b>Flammability - 0</b>	<b>Physical hazards - 0</b>	<b>Personal protection -</b> X -1

**Key or legend to abbreviations and acronyms used in the safety data sheet**

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
CDC	CDC (Center for Disease Control)
CEPA	CEPA (Canadian Environmental Protection Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)
ECHA	ECHA (The European Chemicals Agency)
EEA	EEA (European Environment Agency)
EPA	EPA (Environmental Protection Agency)
ERMA	ERMA (New Zealand's Environmental Risk Management Authority)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
FDA	FDA (Food & Drug Administration)
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)
INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)
IUCLID	IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)
NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
NDF	no data
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEEN	PEEN (Pan European Ecological Network)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.

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SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

**Prepared By** Hach Product Compliance Department

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**Revision Note** None

**Disclaimer**

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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**End of Safety Data Sheet**