*World Headquarters*
*Hach Company*
*P.O.Box 389*
*Loveland, CO USA 80539*
*(970) 669-3050*

*MSDS No: M00005*

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

***Product Name:*** CalVer ® 2 Calcium Indicator
***Catalog Number:*** 94799

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

Emergency Telephone Numbers:
(Medical and Transportation)
(303) 623-5716 24 Hour Service
(515)232-2533 8am - 4pm CST

***MSDS Number:*** M00005
***Chemical Name:*** Not applicable
***CAS Number:*** Not applicable
***Additional CAS No. (for hydrated forms):*** Not applicable
***Chemical Formula:*** Not applicable
***Chemical Family:*** Mixture
***Intended Use:*** Laboratory Reagent Calcium determination

## 2. HAZARDS IDENTIFICATION

***GHS Classification:***
***Hazard categories:*** . Serious Eye Damage/Eye Irritation:Eye Irrit. 2
***GHS Label Elements:***
WARNING

***Hazard statements:*** . Causes serious eye irritation.
***Precautionary statements:*** Wear protective gloves / protective clothing / eye protection / face protection. IF IN EYES: 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. .
***HMIS:***
***Health:*** 2
***Flammability:*** 0
***Reactivity:*** 0
***Protective Equipment:*** X - See protective equipment, Section 8.
***NFPA:***
***Health:*** 2
***Flammability:*** 0
***Reactivity:*** 0
***Symbol:*** Not applicable
***WHMIS Hazard Classification:*** Not applicable
***WHMIS Symbols:*** Not applicable

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

***Hazardous Components according to GHS:***
**Hydroxynaphthol Blue**

***CAS Number:*** 63451-35-4
***Chemical Formula:*** $C_{14}H_{11}N_2O_{11}S_3Na_3$
***GHS Classification:*** Acute Tox. 5-Orl, H303; STOT SE 3, H335; Carc. 2, H351;
***Percent Range (Trade Secret):*** < 1.0
***Percent Range Units:*** weight / weight
***PEL:*** 10 mg/m$^3$ as inhalable dust; 3 mg/m$^3$ as respirable dust
***TLV:*** 15 mg/m$^3$ as inhalable dust; 5 mg/m$^3$ as respirable dust

***WHMIS Symbols:*** Not applicable
***Hazardous Components according to GHS: No***

**Sodium Chloride**

***CAS Number:*** 7647-14-5
***Chemical Formula:*** NaCl
***GHS Classification:*** Acute Tox. 5-Orl, H303
***Percent Range (Trade Secret):*** > 99.0
***Percent Range Units:*** weight / weight
***PEL:*** 15 mg/m$^3$ as total dust; 5 mg/m$^3$ as respirable dust
***TLV:*** 10 mg/m$^3$ as inhalable dust; 3 mg/m$^3$ as respirable dust

***WHMIS Symbols:*** Other Toxic Effects

## 4. FIRST AID MEASURES

***General Information:*** In the event of exposure, show this Material Safety Data Sheet and label (where possible) to a doctor.
***Advice to doctor:*** Treat symptomatically.
***Eye Contact:*** Immediately flush eyes with water for 15 minutes. Call physician.
***Skin Contact (First Aid):*** Wash skin with plenty of water. Call physician if irritation develops. Remove contaminated clothing.
***Inhalation:*** Remove to fresh air.
***Ingestion (First Aid):*** Give large quantities of water. Never give anything by mouth to an unconscious person. Call physician immediately.

## 5. FIRE FIGHTING MEASURES

***Flammable Properties:*** During a fire, corrosive and toxic gases may be generated by thermal decomposition.
***Fire Fighting Instruction:*** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.
***Extinguishing Media:*** Use media appropriate to surrounding fire conditions
***Extinguishing Media NOT To Be Used:*** Not applicable
***Fire / Explosion Hazards:*** None reported
***Hazardous Combustion Products:*** Toxic fumes of: chlorides sodium monoxide

## 6. ACCIDENTAL RELEASE MEASURES

***Spill Response 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.
***Containment Technique:*** Stop spilled material from being released to the environment.
***Clean-up Technique:*** If permitted by regulation, Sweep up material. Flush the spilled material to the drain with a large excess of water. Decontaminate the area of the spill with a soap solution. Otherwise, Pick up spill for disposal and place in a closed container Dispose of in accordance with local, state and federal regulations or laws.
***Evacuation Procedure:*** Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.
***DOT Emergency Response Guide Number:*** Not applicable

## 7. HANDLING AND STORAGE

***Handling:*** Avoid contact with eyes Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.
***Storage:*** Keep container tightly closed when not in use. Store at 10 - 30°C.
***Flammability Class:*** Not applicable

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

***Engineering Controls:*** Maintain general industrial hygiene practices when using this product.
***Personal Protective Equipment:***
***Eye Protection:*** safety glasses with top and side shields
***Skin Protection:*** lab coat disposable latex gloves In the EU, the selected gloves must satisfy the specifications of EU Directive 89/686/EEC and standard EN 374 derived from it.
***Inhalation Protection:*** adequate ventilation
***Precautionary Measures:*** Avoid contact with: eyes Wash thoroughly after handling.
***TLV:*** Not established
***PEL:*** Not established
***For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.:***

## 9. PHYSICAL AND CHEMICAL PROPERTIES

***Appearance:*** Pinkish purple powder
***Physical State:*** Solid
***Molecular Weight:*** Not applicable
***Odor:*** Amine
***Odor Threshold:*** Not available
***pH:*** 5% solution = 7.9
***Metal Corrosivity:***
***Corrosivity Classification:*** Not classified as corrosive to metals according to GHS criteria.
***Steel:*** Not determined
***Aluminum:*** Not determined
***Specific Gravity/ Relative Density (water = 1; air =1):*** 2.13
***Viscosity:*** Not applicable
***Solubility:***
***Water:*** Soluble
***Acid:*** Not determined
***Other:*** Not determined
***Partition Coefficient (n-octanol / water):*** Not applicable
***Coefficient of Water / Oil:*** Not applicable
***Melting Point:*** Decomposes at 274 °C (525 °F)
***Decomposition Temperature:*** 274 °C (525 °F)
***Boiling Point:*** Not applicable
***Vapor Pressure:*** Not applicable
***Vapor Density (air = 1):*** Not applicable
***Evaporation Rate (water = 1):*** Not applicable
***Volatile Organic Compounds Content:*** Not applicable
***Flammable Properties:*** During a fire, corrosive and toxic gases may be generated by thermal decomposition.
***Flash Point:*** Not applicable
***Method:*** Not applicable
***Flammability Limits:***
***Lower Explosion Limits:*** Not applicable
***Upper Explosion Limits:*** Not applicable
***Autoignition Temperature:*** Not applicable
***Explosive Properties:***
Not classified according to GHS criteria.
***Oxidizing Properties:***
Not classified according to GHS criteria.
***Reactivity Properties:***
Not classifed as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS criteria.
***Gas under Pressure:***

Not classified according to GHS criteria.

## 10. STABILITY AND REACTIVITY

***Chemical Stability:*** Stable when stored under proper conditions.
***Mechanical Impact:*** None reported
***Static Discharge:*** None reported.
***Reactivity / Incompatibility:*** None reported
***Hazardous Decomposition:*** None reported
***Conditions to Avoid:*** Extreme temperatures Excess exposure to air (carbon dioxide) may make powder turn purple

## 11. TOXICOLOGICAL INFORMATION

***Toxicokinetics, Metabolism and Distribution:*** No information available for mixture.
***Toxicologically Synergistic Products:*** None reported
***Acute Toxicity:*** Acute Toxicity Estimate (ATE) - Calculated from Ingredient Toxicity Data Route Data Given Below Based on classification principles, the classification criteria are not met.
ATE Oral Rat LD50 = 3009 mg/kg
***Specific Target Organ Toxicity - Single Exposure (STOT-SE):*** Based on classification principles, the classification criteria are not met.
***Specific Target Organ Toxicity - Repeat Exposure (STOT-RE):*** Based on classification principles, the classification criteria are not met.
***Skin Corrosion/Irritation:*** Based on classification principles, the classification criteria are not met.
***Eye Damage:*** Irritating to eyes.
***Sensitization:*** Based on classification principles, the classification criteria are not met.
***CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction):*** Potential carcinogen
Contains Potential Carcinogen: Hydroxynaphthol Blue
This product does NOT contain any IARC listed chemicals.
This product does NOT contain any NTP listed chemicals.
This product does NOT contain any OSHA listed carcinogens.
***Symptoms/Effects:***
***Ingestion:*** May cause: vomiting dehydration diarrhea blood pressure problems muscular twitching rigidity collapse death
***Inhalation:*** No effects anticipated
***Skin Absorption:*** No effects anticipated
***Chronic Effects:*** None reported
***Medical Conditions Aggravated:*** Pre-existing: Eye conditions

## 12. ECOLOGICAL INFORMATION

***Product Ecological Information:*** --
No ecological data available for this product. Mobility in soil: No data available No bioaccumulation potential Based on classification principles, not classified as hazardous to the environment.
***Ingredient Ecological Information:*** --
Ecological data for ingredients is not indicative of likely ecological harm. CEPA categorization for each and every ingredient: Persistent Not bioaccumulative and not inherently toxic to aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

***EPA Waste ID Number:*** Not applicable
***Special Instructions (Disposal):*** Dilute to 3 to 5 times the volume with cold water. If permitted by regulation, Open cold water tap completely, slowly pour the material to the drain. Allow cold water to run for 5 minutes to completely flush the system. Otherwise, Check with local municipal and state authorities and waste contractors for pertinent local information regarding the proper disposal of chemicals.
***Empty Containers:*** Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state or federal regulations. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P. A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste. Dispose of empty container as normal trash.
***NOTICE (Disposal):*** These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information. In Europe: Chemical

and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

## 14. TRANSPORT INFORMATION

***D.O.T.:***
***D.O.T. Proper Shipping Name:*** Not Currently Regulated
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***Hazard Class:*** NA
***Subsidiary Risk:*** NA
***ID Number:*** NA
***Packing Group:*** NA

***T.D.G.:***
***Proper Shipping Name:*** Not Currently Regulated
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***Hazard Class:*** NA
***Subsidiary Risk:*** NA
***UN Number/PIN:*** NA
***Packing Group:*** NA

***I.C.A.O.:***
***I.C.A.O. Proper Shipping Name:*** Not Currently Regulated
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***Hazard Class:*** NA
***Subsidiary Risk:*** NA
***ID Number:*** NA
***Packing Group:*** NA

***I.M.O.:***
***Proper Shipping Name:*** Not Currently Regulated
--
***Hazard Class:*** NA
***Subsidiary Risk:*** NA
***ID Number:*** NA
***Packing Group:*** NA

***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 set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

## 15. REGULATORY INFORMATION

***U.S. Federal Regulations:***
***O.S.H.A.:*** This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)
***E.P.A.:***
***S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370):*** Immediate (Acute) Health Hazard
***S.A.R.A. Title III Section 313 (40 CFR 372):*** This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.
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***302 (EHS) TPQ (40 CFR 355):*** Not applicable
***304 CERCLA RQ (40 CFR 302.4):*** Not applicable
***304 EHS RQ (40 CFR 355):*** Not applicable
***Clean Water Act (40 CFR 116.4):*** Not applicable
***RCRA:*** Contains no RCRA regulated substances.

***State Regulations:***
***California Prop. 65:*** No Prop. 65 listed chemicals are present in this product.
***Identification of Prop. 65 Ingredient(s):*** None
***California Perchlorate Rule CCR Title 22 Chap 33:*** Not applicable
***Trade Secret Registry:*** Not applicable

***National Inventories:***
***U.S. Inventory Status:*** All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).
***CAS Number:*** Not applicable

***Canadian Inventory Status:*** All ingredients of this product are DSL Listed.
***EEC Inventory Status:*** All ingredients used to make this product are listed on EINECS / ELINCS.
***Australian Inventory (AICS) Status:*** All ingredients are listed.
***New Zealand Inventory (NZIoC) Status:*** All components either listed or exempt.
***Korean Inventory (KECI) Status:*** Some ingredients are not listed or exempt.
***Japan (ENCS) Inventory Status:*** All components either listed or exempt.
***China (PRC) Inventory (MEP) Status:*** All components either listed or exempt.

## 16. OTHER INFORMATION

***References:*** 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Cassaret and Doull's Toxicology, 3rd Ed. New York: Macmillan Publishing Co., Inc., 1986. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. In-house information. Technical Judgment. Acta Anat. 74: 121-124 (1969). Journal of Clinical Investigations 41: 710-714 (1962).
***Complete Text of H phrases referred to in Section 3:*** Not applicable H319 Causes serious eye irritation. H335 May cause respiratory irritation. H351 Suspected of causing cancer.
***Revision Summary:*** . Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UN GHS ( ST/SG/AC.10/36/Add.3).
***Date of MSDS Preparation:***
***Day:*** 30
***Month:*** July
***Year:*** 2014
***MSDS Prepared:*** MSDS prepared by Product Compliance Department extension 3350
***CCOHS Evaluation Note:*** It is offered under exemption from WHMIS labeling as specified in the Controlled Products Regulation (CPR) Section 17. It is offered under the interim policy that was established by Health Canada permitting use of GHS-formatted safety data sheets in Canada prior to revision of CPR to GHS. This product has been classified and labeled in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3). This SDS has been prepared in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3).

**Legend:**

| | |
|---|---|
| NA - Not Applicable | w/w - weight/weight |
| ND - Not Determined | w/v - weight/volume |
| NV - Not Available | v/v - volume/volume |

**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.**