1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

*Product Name:* Oxidizing Agent Tablets B  
*Catalog Number:* TNT809B

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:* M01975  
*Chemical Name:* Not applicable  
*CAS Number:* Not applicable  
*Additional CAS No. (for hydrated forms):* Not applicable  
*Chemical Formula:* Not applicable  
*Chemical Family:* Not applicable  
*Intended Use:* Laboratory Reagent  
Determinant of total nitrogen

2. HAZARDS IDENTIFICATION

*GHS Classification:*  
*Hazard categories:* Acute Toxicity: Acute Tox.4-Orl  
Skin Corrosion/Irritation: Skin Irrit. 2  
Serious Eye Damage/Eye Irritation/Eye Irrit. 2  
Respiratory or Skin Sensitization: Skin Sens.1  
Respiratory or Skin Sensitization: Resp. Sens.1  
Specific Target Organ Toxicity - Single Exposure: STOT SE 3  
Reproductive Toxicity: Repr. 1B

*GHS Label Elements:*  
DANGER

*Hazard statements:* Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May damage fertility. May damage the unborn child.

*Precautionary statements:* Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Wear protective gloves/protective clothing/eye protection/face protection. IF INHALED: IF breathing is difficult, remove victim/person to fresh air and keep at rest in a position comfortable for breathing. IF exposed or concerned: Get medical advice/attention. IF experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

*HMIS:*  
Health: 2  
Flammability: 0  
Reactivity: 0  
Protective Equipment: X - See protective equipment, Section 8

*NFPA:*  
Health: 1  
Flammability: 0  
Reactivity: 0  
Symbol: Not applicable

*WHMIS Hazard Classification:* Class D, Division 2, Subdivision B - Toxic material (other toxic effects)

*WHMIS Symbols:* Other Toxic Effects
3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components according to GHS:

Potassium Persulfate

CAS Number: 7727-21-1  
Chemical Formula: K₂S₂O₈  
GHS Classification: Ox. Sol. 3, H272; Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; Resp. Sens. 1 H334; STOT SE 3, H335  
Percent Range (Trade Secret): 60.0 - 70.0  
Percent Range Units: weight / weight  
PEL: 15 mg/m³ as inhalable dust; 5 mg/m³ as respirable dust  
TLV: 5 mg/m³  

WHMIS Symbols: OxidizingOther Toxic Effects

Sodium Borate

CAS Number: 1330-43-4  
Chemical Formula: Na₅B₉O₁₅·10H₂O  
GHS Classification: Acute Tox. 5-Ortl. H303; Acute Tox. 5-Inh. H333; Repr. 1B, H360  
Percent Range (Trade Secret): 10.0 - 20.0  
Percent Range Units: weight / weight  
PEL: 15 mg/m³ as inhalable dust; 5 mg/m³ as respirable dust  
TLV: 2 mg/m³  

WHMIS Symbols: Other Toxic Effects

Sodium Metaborate

CAS Number: 7775-19-1  
Chemical Formula: BHO₂ Na  
GHS Classification: Skin Irrit. 2 H315; Eye Irrit. 2 H319; STOT SE 3 H335; Repr. 2, H361  
Percent Range (Trade Secret): 10.0 - 20.0  
Percent Range Units: weight / weight  
PEL: 15 mg/M³ Total Dust; 5 mg/M³ Respirable Dust  
TLV: 10 mg/M³ Inhalable Particles; 3 mg/M³ Respirable Particles  

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 soap and plenty of water. Remove contaminated clothing. Call physician immediately.

Inhalation: Remove to fresh air.

Ingestion (First Aid): Do not induce vomiting. Give 1-2 glasses of water. Call physician immediately. Never give anything by mouth to an unconscious person.

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: sodium oxides sulfur oxides.
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. Cover spilled solid material with sand or other inert material.

**Clean-up Technique:** If permitted by regulation, remove all combustible materials from the spill area. Cover with an inert material, such as sand. Sweep up material. Work in an approved fume hood. Working in small batches, dilute with excess water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Filter to remove solids. Flush reacted 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 local area (15 foot radius or as directed by your facility’s emergency response plan) when any quantity is spilled. 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, skin, clothing. Do not breathe dust. Wash thoroughly after handling. Use with adequate ventilation. Maintain general industrial hygiene practices when using this product.

**Storage:** Store away from combustible materials. Protect from: heat, moisture

**Flammability Class:** Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use general ventilation to minimize exposure to mist, vapor or dust. Maintain general industrial hygiene practices when using this product.

**Personal Protective Equipment:**
- **Eye Protection:** safety glasses with top and side shields
- **Skin Protection:** 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. Lab coat
- **Inhalation Protection:** adequate ventilation

**Precautionary Measures:** Avoid contact with: eyes, skin, clothing. Do not breathe dust. Wash thoroughly after handling. Protect from: heat, moisture

**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:** White powder

**Physical State:** Solid

**Molecular Weight:** Not applicable

**Odor:** None

**Odor Threshold:** Odorless

**pH:** Not determined

**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):** Not determined

**Viscosity:** Not determined

**Solubility:**
- **Water:** Soluble
- **Acid:** Soluble
- **Other:** Not determined

**Partition Coefficient (n-octanol/water):** Not applicable

**Coefficient of Water/Oil:** Not applicable
Melting Point: Not determined
Decomposition Temperature: Not determined
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 classified 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.
  Not determined

10. STABILITY AND REACTIVITY

  Chemical Stability: Stable when stored under proper conditions.
  Mechanical Impact: None reported.
  Static Discharge: None reported.
  Reactivity / Incompatibility: Incompatible with: aluminum reducers
  Hazardous Decomposition: Heating to decomposition releases toxic and/or corrosive fumes of: sulfur oxides sodium monoxide
  Conditions to Avoid: Heating to decomposition. Excess moisture

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
    ATE Oral Rat LD50 = 1083 mg/kg
    ATE Dermal Rat LD50 = 10000mg/kg
  Specific Target Organ Toxicity - Single Exposure (STOT-SE): Based on classification principles, the classification criteria are not met. Respiratory Tract
  Specific Target Organ Toxicity - Repeat Exposure (STOT-RE): Based on classification principles, the classification criteria are not met.
  Skin Corrosion/Irritation: Irritating to skin.
  Eye Damage: Irritating to eyes.
  Sensitization: Respiratory Sensitizer Skin Sensitizer
  CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction): Reported impairment of fertility by substance or ingredient of mixture. Reproductive toxicity has been reported.
    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: gastrointestinal tract irritation nausea vomiting diarrhea muscular twitching lethargy circulatory disturbances central nervous system effects shock kidney damage
    Inhalation: May cause: irritation of nose and throat allergic respiratory reaction
    Skin Absorption: Will be absorbed through abraded or broken skin. Effects similar to those of ingestion
    Chronic Effects: Chronic overexposure may cause allergic respiratory reactions allergic skin reactions weight loss anemia
Medical Conditions Aggravated: Pre-existing: Eye conditions Skin conditions Respiratory conditions Allergies or sensitivity to potassium persulfate.

12. ECOLOGICAL INFORMATION

Product Ecological Information: --
No ecological data available for this product. Mobility in soil: No data available
Ingredient Ecological Information: --
No ecological data available for the ingredients of this product. CEPA categorization for each and every ingredient: Persistent

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: Not applicable
Special Instructions (Disposal): Dilute material with excess water making a weaker than 5% solution. 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 material to the drain. Allow cold water to run for 5 minutes to completely flush the system.
Empty Containers: Rinse three times with an appropriate solvent. 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
--
Hazard Class: NA
Subsidiary Risk: NA
ID Number: NA
Packing Group: NA
T.D.G.: 
Proper Shipping Name: Not Currently Regulated
--
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
--
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.

--
302 (EHS) TPQ (40 CFR 355): Not applicable
304 CERCLA RP (40 CFR 302.4): Not applicable
304 EHS RP (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: All components of this product are either listed, listed as the anhydrous compound 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


Complete Text of H phrases referred to in Section 3: H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H360FD May damage fertility. May damage the unborn child.

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 SDS Preparation:
Day: 01
Month: August
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
ND - Not Determined
NV - Not Available
w/w - weight/weight
w/v - weight/volume
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.

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