

January 19, 2017

MARK BENSLEY  
SIMULAIDS INC  
16 SIMULAIDS DR  
PO BOX 1289  
SAUGERTIES, NY. 12477

DEAR MARK BENSLEY,

Enclosed please find the Material Safety Data Sheet (MSDS) for the material listed below. Either you recently purchased this product from us, and/or we are furnishing this MSDS as required by the “Annual Notification Procedures under Section 313 of Title III”.


Product Name: NATROSOL 250 HBR PA PRNT BAG

We thank you for your order and hope we may continue to merit serving your future requirements.

Very truly yours,

*Jigisha Patel*

Jigisha Patel  
Manager Technical Information  
Brenntag Specialties, Inc.

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<b>SAFETY DATA SHEET</b>	Revision Date: 11/07/2016
	Print Date: 12/30/2016
	SDS Number: 000000272423
Natrosol™ 250HBR PA Hydroxyethylcellulose ™ Trademark, Ashland or its subsidiaries, registered in various countries 431169	Version: 1.2

29 CFR 1910.1200 (OSHA HazCom 2012)

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

**Product identifier**

Trade name : Natrosol™ 250HBR PA  
Hydroxyethylcellulose  
™ Trademark, Ashland or its subsidiaries, registered in various countries

**Relevant identified uses of the substance or mixture and uses advised against**

Recommended use : Rheology modifier

<p><b>Details of the supplier of the safety data sheet</b></p> <p>Ashland P.O. Box 2219 Columbus, OH 43216 United States of America</p> <p>EHSProductSafety@ashland.com</p>	<p><b>Emergency telephone number</b> 1-800-ASHLAND (1-800-274-5263)</p> <p><b>Regulatory Information Number</b> 1-800-325-3751</p> <p><b>Product Information</b> 614-790-3333</p>
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**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Combustible Dust :

**GHS label elements**

Signal Word : Warning


Hazard Statements : May form combustible dust concentrations in air.

Precautionary Statements : **Prevention:**  
Keep dust/air mixtures away from ignition sources.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

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Substance / Mixture : Mixture


Chemical nature : Defatter

**Hazardous components**

Chemical name	CAS-No.	Classification	Concentration (%)
SILICA COLLOIDAL	112926-00-8	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	1.50

**SECTION 4. FIRST AID MEASURES**

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.  
 If unconscious, place in recovery position and seek medical advice.  
 If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.  
 Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.  
 Never give anything by mouth to an unconscious person.  
 If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:  
 irritation (nose, throat, airways)
- Notes to physician : No hazards which require special first aid measures.

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## SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
 Water spray  
 Foam
- Specific hazards during firefighting : Organic dusts at sufficient concentration can form explosive mixtures in air.  
 Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide  
 Nitrogen oxides (NOx)  
 Oxides of phosphorus  
 Sodium oxides
- Specific extinguishing methods :  
  
 Product is compatible with standard fire-fighting agents.
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.


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## SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid dust formation.  
 Avoid breathing dust.  
 Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.  
 Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

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## SECTION 7. HANDLING AND STORAGE

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- Advice on safe handling : Avoid dust formation.  
 Smoking, eating and drinking should be prohibited in the application area.  
 For personal protection see section 8.
- Conditions for safe storage : No smoking.
- Materials to avoid : No materials to be especially mentioned.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**


**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
SILICA COLLOIDAL	112926-00-8	TWA	6 mg/m3	OSHA P0
		TWA	20 Million particles per cubic foot Dust (Silica)	OSHA Z-3
		TWA	80 mg/m3 / %SiO2 Dust (Silica)	OSHA Z-3
		TWA	6 mg/m3 (Silica)	NIOSH REL
		PEL	6 mg/m3	CAL PEL

- Engineering measures** : Provide appropriate exhaust ventilation at places where dust is formed.  
 General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

**Personal protective equipment**

- Respiratory protection : No personal respiratory protective equipment normally required.
- Eye protection : Safety glasses

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Skin and body protection : Wear as appropriate:  
 Safety shoes  
 Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : Avoid breathing dust.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : granules, powder

Physical state : solid

Colour : off-white

Odour : odourless

Odour Threshold : No data available

pH : 6.0 - 8.5  
 Concentration: 2 %  
 (as aqueous solution)

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available


Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 1.38 g/cm<sup>3</sup>

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Solubility(ies)  
 Water solubility : soluble, Limited by viscosity

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Thermal decomposition : No data available

Viscosity  
 Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : UV light.  
 Exposure to sunlight.  
 Exposure to moisture


Keep away from heat, flame, sparks and other ignition sources.

Incompatible materials : Acids  
 Bases  
 Hydrogen fluoride  
 Oxidizing agents  
 strong bases

Hazardous decomposition products : No hazardous decomposition products are known.

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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Information on likely routes of exposure : Inhalation  
 Skin contact  
 Eye Contact  
 Ingestion

**Acute toxicity**

Not classified based on available information.

**Components:**

SILICA COLLOIDAL:

Acute oral toxicity : LD50 (Rat): > 10,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Components:**

SILICA COLLOIDAL:

Result: Slight, transient irritation

**Serious eye damage/eye irritation**

Not classified based on available information.

**Product:**

Remarks: Unlikely to cause eye irritation or injury., Product dust may be irritating to eyes, skin and respiratory system.

**Components:**

SILICA COLLOIDAL:

Result: Slight, transient irritation

**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**


Not classified based on available information.

**Further information**

**Product:**

Remarks: No data available



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**Carcinogenicity:**

**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

**Components:**

SILICA COLLOIDAL:

Toxicity to fish : NOEC (Fish): 10,000 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Daphnia magna)): > 10,000 mg/l  
Exposure time: 24 h

Toxicity to algae : NOEC (Desmodesmus subspicatus (green algae)): 10,000 mg/l  
Exposure time: 72 h

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: Inherently biodegradable


**Components:**

No data available

**Bioaccumulative potential**

**Components:**

No data available

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**Mobility in soil**

**Components:**

No data available

**Other adverse effects**

No data available

**Product:**

Additional ecological information : No data available

**Components:**

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

General advice : Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.

**SECTION 14. TRANSPORT INFORMATION**

**International transport regulations**

**REGULATION**

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

**MX\_DG**

Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

Not dangerous goods

**INTERNATIONAL MARITIME DANGEROUS GOODS**

Not dangerous goods

**TDG\_INWT\_C**

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Not dangerous goods
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**TDG\_RAIL\_C**

Not dangerous goods
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**TDG\_ROAD\_C**

Not dangerous goods
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**U.S. DOT - INLAND WATERWAYS**

Not dangerous goods
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**CFR\_RAIL\_C**

Not dangerous goods
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**U.S. DOT - ROAD**

Not dangerous goods
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**\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant		no
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

**SECTION 15. REGULATORY INFORMATION**

**EPCRA - Emergency Planning and Community Right-to-Know Act  
CERCLA Reportable Quantity**


Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
DISODIUM PHOSPHATE	7558-79-4	5000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Fire Hazard

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**SARA 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**California Prop 65**

WARNING! This product contains a chemical known to the State of California to cause cancer.

FORMALDEHYDE 50-00-0

1,4-DIOXANE 123-91-1

ACETALDEHYDE 75-07-0

ETHYLENE OXIDE 75-21-8

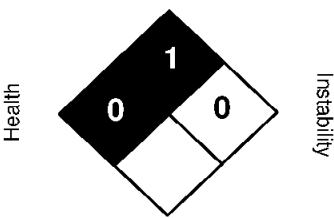
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

ETHYLENE OXIDE 75-21-8

**SECTION 16. OTHER INFORMATION**


**Further information**

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<p><b>NFPA:</b></p> <div style="text-align: center;"> <p>Flammability</p>  <p>Special hazard.</p> </div>	<p><b>HMIS III:</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: black; color: white;"><b>HEALTH</b></td> <td><b>0</b></td> </tr> <tr> <td style="background-color: black; color: white;"><b>FLAMMABILITY</b></td> <td><b>0</b></td> </tr> <tr> <td style="background-color: black; color: white;"><b>PHYSICAL HAZARD</b></td> <td><b>0</b></td> </tr> </table> <p>0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	<b>HEALTH</b>	<b>0</b>	<b>FLAMMABILITY</b>	<b>0</b>	<b>PHYSICAL HAZARD</b>	<b>0</b>
<b>HEALTH</b>	<b>0</b>						
<b>FLAMMABILITY</b>	<b>0</b>						
<b>PHYSICAL HAZARD</b>	<b>0</b>						

**NFPA Flammable and Combustible Liquids Classification**

Not applicable

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### Full text of H-Statements

Sources of key data used to compile the Safety Data Sheet

Ashland internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

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

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S. : Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit


P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

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TLV : Threshold Limit Value  
 TWA : Time-weighted average  
 vPvB : Very Persistent and Very Bioaccumulative  
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act  
 DOT : Department of Transportation  
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act  
 HMIRC : Hazardous Materials Information Review Commission  
 HMIS : Hazardous Materials Identification System  
 NFPA : National Fire Protection Association  
 NIOSH : National Institute for Occupational Safety and Health  
 OSHA : Occupational Safety and Health Administration  
 PMRA : Health Canada Pest Management Regulatory Agency  
 RTK : Right to Know  
 WHMIS : Workplace Hazardous Materials Information System