

		Page: 1
SAFETY DATA SHEET		Revision Date: 09/17/2019
		Print Date: 9/4/2020
		SDS Number: R0703344
Natrosol™ 250 HHX PHARM Hydroxyethylcellulose ™ Trademark, Ashland or its subsidiaries, registered in various countries 414464		Version: 1.1

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

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

Substance name : HYDROXYETHYLCELLULOSE

Substance No.
 EC-No. : 618-387-5

CAS-No. : 9004-62-0

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

Details of the supplier of the safety data sheet Ashland P.O. Box 2219 Columbus, OH 43216 United States of America (USA) +1-614-790-3333 EHSProductSafety@ashland.com	Emergency telephone number 1-800-ASHLAND (1-800-274-5263)+1-859-963-4703 Regulatory Information Number 1-614-790-3333 Product Information +1-614-790-3333
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SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
 Not a hazardous substance or mixture.
GHS label elements
 Not a hazardous substance or mixture.

Other hazards which do not result in classification
 No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance
 Chemical nature : organic



SAFETY DATA SHEET	Revision Date: 09/17/2019
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	SDS Number: R0703344
Natrosol™ 250 HHX PHARM Hydroxyethylcellulose ™ Trademark, Ashland or its subsidiaries, registered in various countries 414464	Version: 1.1

Hazardous components

No hazardous ingredients

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	: The most important known symptoms and effects are described in the labelling (see Section 2.2) and/or Section 11.
Notes to physician	: No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray Foam
Hazardous combustion products	: Carbon dioxide (CO ₂) Carbon monoxide Oxides of phosphorus Sodium oxides
Specific extinguishing methods	: Standard procedure for chemical fires.

	Page: 3
SAFETY DATA SHEET	Revision Date: 09/17/2019
	Print Date: 9/4/2020
	SDS Number: R0703344
Natrosol™ 250 HHX PHARM Hydroxyethylcellulose ™ Trademark, Ashland or its subsidiaries, registered in various countries 414464	Version: 1.1

Product is compatible with standard fire-fighting agents.

Special protective equipment : In the event of fire, wear self-contained breathing apparatus for firefighters

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid dust formation.
Avoid breathing dust.
Material can create slippery conditions.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Comply with all applicable federal, state, and local regulations.
- 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.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Take measures to prevent the build up of electrostatic charge.
Provide appropriate exhaust ventilation at places where dust is formed.
- Advice on safe handling : Avoid dust formation.
Ensure all equipment is electrically grounded and bonded before beginning transfer operations.
The material can accumulate static charge and can therefore cause electrical ignition of flammable atmospheres.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Maintain good housekeeping. Do not permit dust layers to accumulate, for example, on floors, ledges, and equipment, in order to avoid any potential for dust explosion hazards.
- Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters
 Contains no substances with occupational exposure limit values.



SAFETY DATA SHEET	Revision Date: 09/17/2019
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	SDS Number: R0703344
Natrosol™ 250 HHX PHARM Hydroxyethylcellulose ™ Trademark, Ashland or its subsidiaries, registered in various countries 414464	Version: 1.1

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 : In the case of vapour formation use a respirator with an approved filter within the capabilities of the respirator/filter combination.
Where concentrations are above recommended limits or are unknown, or a cartridge type respirator is not adequate, wear a positive-pressure supplied-air respirator.

Hand protection

Material : butyl-rubber
Break through time : 480 min
Glove thickness : > 0.5 mm

Remarks : The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Safety glasses

Skin and body protection : Wear as appropriate:
Safety shoes

Hygiene measures : Avoid breathing dust.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : solid
Colour : white
Odour : odourless
Odour Threshold : No data available
pH : 6 - 8.5



SAFETY DATA SHEET	Revision Date: 09/17/2019
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Natrosol™ 250 HHX PHARM Hydroxyethylcellulose ™ Trademark, Ashland or its subsidiaries, registered in various countries 414464	Version: 1.1

Melting point/freezing point	: No data available
Boiling point/boiling range	: No data available
Flash point	: Not applicable
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	: No data available
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: 3,400 - 5,500 mPa.s
Viscosity, kinematic	: No data available
Oxidizing properties	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous	: Product will not undergo hazardous polymerization.



SAFETY DATA SHEET	Revision Date: 09/17/2019
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Natrosol™ 250 HHX PHARM Hydroxyethylcellulose ™ Trademark, Ashland or its subsidiaries, registered in various countries 414464	Version: 1.1

reactions

Conditions to avoid : Keep away from heat, flame, sparks and other ignition sources.

UV light.
Exposure to sunlight.
Exposure to moisture

Incompatible materials : Acids
Bases
Oxidizing agents
strong bases

Hazardous decomposition products : Carbon monoxide
Carbon dioxide (CO₂)
Oxides of phosphorus
Sodium oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

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.

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

**SAFETY DATA SHEET**

Revision Date: 09/17/2019

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Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

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.

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods



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UN_DG

Not dangerous goods

***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**

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

The components of this product are reported in the following inventories:

- DSL : All components of this product are on the Canadian DSL
- AICS : On the inventory, or in compliance with the inventory
- ENCS : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory
- TCSI : On the inventory, or in compliance with the inventory
- TSCA : On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)
- On or in compliance with the active portion of the TSCA inventory

SECTION 16. OTHER INFORMATION

Further information

Revision Date: 09/17/2019

	Page: 9
SAFETY DATA SHEET	Revision Date: 09/17/2019
	Print Date: 9/4/2020
	SDS Number: R0703344
Natrosol™ 250 HHX PHARM Hydroxyethylcellulose ™ Trademark, Ashland or its subsidiaries, registered in various countries 414464	Version: 1.1

Full text of H-Statements

Other information : 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).

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.

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

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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

TLV : Threshold Limit Value

On TSCA Inventory : On or in compliance with the active portion of the TSCA inventory

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level