

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
™ Trademark, Ashland or its subsidiaries, registered
in various countries
740110

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier**

Trade name : Natrosol™ 250HHR CS
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

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 (USA)

EHSProductSafety@ashland.com

Emergency telephone number

1-800-ASHLAND (1-800-274-5263)

Regulatory information

1-614-790-3333 (customer service)

Product Information

1-614-790-3333 (USA)

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Combustible Dust :

GHS label elements

Signal Word : Warning

Hazard Statements : May form combustible dust concentrations in air.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
™ Trademark, Ashland or its subsidiaries, registered
in various countries
740110

Chemical nature : organic

Hazardous components

This product is considered hazardous according to the OSHA Hazard Communication Standard 29CFR1910.1200 due to flammable dust potential.

SECTION 4. FIRST AID MEASURES

- General advice : Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and plenty of water.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Specific hazards during firefighting : No information available.
- Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Nitrogen oxides (NO_x)
Oxides of phosphorus
Sodium oxides
- Specific extinguishing :



SAFETY DATA SHEET

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
 ™ Trademark, Ashland or its subsidiaries, registered
 in various countries
 740110

methods

Standard procedure for chemical fires.

Further information : Standard procedure for chemical fires.
 Use extinguishing measures that are appropriate to local
 circumstances and the surrounding environment.

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
 Avoid dust formation.

Environmental precautions : Prevent further leakage or spillage if safe to do so.
 If the product contaminates rivers and lakes or drains inform
 respective authorities.

Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.
 Sweep up and shovel.
 Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust
 is formed.

Advice on safe handling : For personal protection see section 8.
 Smoking, eating and drinking should be prohibited in the
 application area.

Conditions for safe storage : Electrical installations / working materials must comply with
 the technological safety standards.

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability : Keep in a dry place.

SAFETY DATA SHEET

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
™ Trademark, Ashland or its subsidiaries, registered
in various countries
740110

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : 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 dust or aerosol formation use 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 : Work uniform or laboratory coat.

Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : granules, powder

Physical state : solid

Colour : off-white

Odour : odourless

Odour Threshold : Not applicable

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
™ Trademark, Ashland or its subsidiaries, registered
in various countries
740110

pH	: 6.5 - 8.5 Concentration: 1 % (as aqueous solution)
Melting point/freezing point	: not determined
Boiling point/boiling range	: not determined
Flash point	: not determined
Evaporation rate	: Not applicable
Upper explosion limit	: Upper explosion limit not determined
Lower explosion limit	: Lower explosion limit 30 g/m ³
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Relative density	: No data available
Density	: 1.38 g/cm ³
Solubility(ies)	
Water solubility	: soluble, Limited by viscosity
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: not determined
Auto-ignition temperature	: 460 °C
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Oxidizing properties	: Not applicable

SECTION 10. STABILITY AND REACTIVITY

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
™ Trademark, Ashland or its subsidiaries, registered
in various countries
740110

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Dust may form explosive mixture in air.
Conditions to avoid	: Protect from frost, heat and sunlight.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	Carbon monoxide Carbon dioxide (CO ₂) Nitrogen oxides (NO _x) Oxides of phosphorus Sodium oxides

SECTION 11. TOXICOLOGICAL INFORMATION

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

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

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
™ Trademark, Ashland or its subsidiaries, registered
in various countries
740110

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Further information**Product:**

Remarks: No data available

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 on OSHA's list of regulated carcinogens.

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

Short-term (acute) aquatic hazard : Not classified based on available information.

Long-term (chronic) aquatic hazard : Not classified based on available information.

Persistence and degradability**Product:**

Biodegradability : Result: Inherently biodegradable.
Biodegradation: 25.2 %
Exposure time: 28 d
Method: OECD Test Guideline 302B

No data available

Bioaccumulative potential

No data available

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
™ Trademark, Ashland or its subsidiaries, registered
in various countries
740110

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Additional ecological : No data available
information

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Contaminated packaging : Empty containers should be taken to an approved waste
handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION**International transport regulations****REGULATION**

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

U.S. DOT - ROAD

Not dangerous goods

CFR_RAIL_C

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TDG_ROAD_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
 ™ Trademark, Ashland or its subsidiaries, registered
 in various countries
 740110

TDG_INWT_C

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MX_DG

Not dangerous goods

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant

no

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**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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.

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
™ Trademark, Ashland or its subsidiaries, registered
in various countries
740110

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Combustible Dust

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

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.

US State Regulations**Pennsylvania Right To Know**

BIO POLYMER III

254504001-
5906

The identity and concentration of one or more component(s) is being withheld under business confidentiality.

Inorganic salts

Not Assigned

New Jersey Right To Know

BIO POLYMER III

254504001-
5906

The identity and concentration of one or more component(s) is being withheld under business confidentiality.

Inorganic salts

Not Assigned

Sodium dihydrogen phosphate

7558-80-7

Disodium phosphate

7558-79-4

California Prop. 65

This product contains a chemical that is at or below California Propositions 65's "safe harbor level" as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
 ™ Trademark, Ashland or its subsidiaries, registered
 in various countries
 740110

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

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
AIIC	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: 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
NZIoC	: Not in compliance with the inventory

Inventories

AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

Other regulations

US. Drug Enforcement Administration (DEA) Listed Precursor and Essential Chemicals (21 CFR 1310)	Not applicable
--	----------------

SECTION 16. OTHER INFORMATION**Further information**

SAFETY DATA SHEET

Revision Date: 07/06/2022

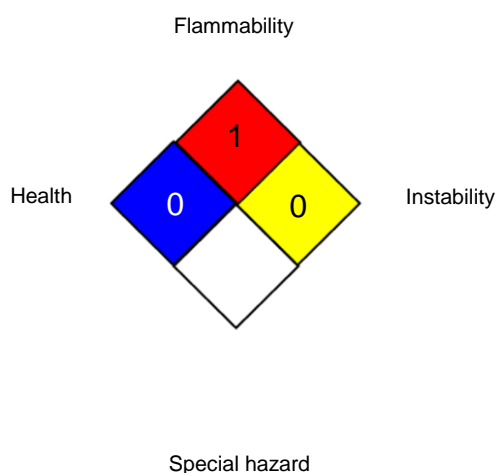
Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
™ Trademark, Ashland or its subsidiaries, registered
in various countries
740110

NFPA 704:



HMIS® IV:

HEALTH	/	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of H-Statements

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration;

**SAFETY DATA SHEET**

Revision Date: 07/06/2022

Print Date: 12/16/2022

SDS Number: R0702818

Version: 1.14

Natrosol™ 250HHR CS Hydroxyethylcellulose
 ™ Trademark, Ashland or its subsidiaries, registered
 in various countries
 740110

NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

This sds has been prepared by Ashland. (<http://www.ashland.com>)

Sources of key data used to compile the Safety Data Sheet : Ashland internal data including own and sponsored test reports
 European Union Law with content from the Official Journal of the European Union.
 European Chemicals Agency; the EU authority implementing the EU's chemicals legislation for companies.
 The German Water Hazard Classes.
 ReachCentrum; a series of support services to help comply with REACH regulations.
 The European Commission; proposing legislation, administering and implementing EU policies, and enforcing EU law.
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.
 Cefic, the European Chemical Industry Council.
 ESIS European Chemical Substances Information System

Revision Date : 07/06/2022

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / EN