



SAFETY DATA SHEET	Revision Date: 03.04.2017
	Print Date: 12.12.2018
	SDS Number: R0703481
N-Hance™ CG13 Cationic Guar Derivatives ™ Trademark, Ashland or its subsidiaries, registered in various countries 427876	Version: 1.3

Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS_BE

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : N-Hance™ CG13
Cationic Guar Derivatives
™ Trademark, Ashland or its subsidiaries, registered in
various countries

Belgium Registration number MA-56498

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

Recommended use : Rheology modifier
in Personal Care

1.3 Details of the supplier of the safety data sheet

Ashland
P.O. Box 8619
NL3009 AP, Rotterdam
Netherlands
+31 10 497 5000 (in the Netherlands), or
contact your local CSR contact person

EUSMT@ashland.com

1.4 Emergency telephone number

+1-800-274-5263/001-859-357-3564, or contact
your local emergency telephone number at
070/245.245

Product Information

+31 10 497 5000 (in the Netherlands), or contact
your local CSR contact person

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2

H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Revision Date: 03.04.2017

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Hazard pictograms



Signal word

: Warning

Hazard statements

: H319

Causes serious eye irritation.

Precautionary statements

: **Prevention:**

P264

Wash skin thoroughly after handling.

P280

Wear eye protection/ face protection.

Response:

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313

If eye irritation persists: Get medical advice/ attention.

Precautionary statements

:

Keep dust/air mixtures away from ignition sources.

2.3 Other hazards**Additional advice**

No information available.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

Chemical nature

: organic

Modified guar

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
CATIONIC GUAR GUM, MODIFIED	65497-29-2 613-809-4	Eye Irrit.2; H319	>= 90,00 - <= 100,00



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Fumaric acid	110-17-8 203-743-0 01-2119485492-31-0019 01-2119485492-31-xxxx	Eye Irrit.2; H319	$\geq 1,00 - < 2,50$
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
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	: Immediately flush eye(s) with plenty of water. 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.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways)
Risks	: Causes serious eye irritation.



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4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No hazards which require special first aid measures.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

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
Hydrocarbons

5.3 Advice for firefighters

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

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.



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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : 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.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid dust formation.
 Do not breathe vapours/dust.
 Do not smoke.
 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.
 Container hazardous when empty.
 Avoid contact with skin and eyes.
 Smoking, eating and drinking should be prohibited in the application area.
 For personal protection see section 8.
 Dispose of rinse water in accordance with local and national regulations.



SAFETY DATA SHEET	Revision Date: 03.04.2017
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	SDS Number: R0703481
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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.

Advice on protection against fire and explosion : Avoid dust formation. Take measures to prevent the build up of electrostatic charge. Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : Avoid breathing dust. Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. No smoking.

Other data : Keep in a dry place. No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

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.

Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Eye protection : Safety glasses

Hand protection

Material : butyl-rubber



SAFETY DATA SHEET	Revision Date: 03.04.2017
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	SDS Number: R0703481
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Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Wear as appropriate:
Safety shoes
Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : powder

Colour : yellow

Odour : odourless

Odour Threshold : No data available

pH : 6,0 - 7,0
Concentration: 1 %
(as aqueous solution)

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



SAFETY DATA SHEET	Revision Date: 03.04.2017
	Print Date: 12.12.2018
	SDS Number: R0703481
N-Hance™ CG13 Cationic Guar Derivatives ™ Trademark, Ashland or its subsidiaries, registered in various countries 427876	Version: 1.3

Relative density	: No data available
Density	: similar to water
Solubility(ies)	
Water solubility	: 100 g/l soluble, Limited by viscosity (25 °C)
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Oxidizing properties	: No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Dust may form explosive mixture in air.

10.4 Conditions to avoid

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

excessive heat
UV light.
Exposure to sunlight.



SAFETY DATA SHEET	Revision Date: 03.04.2017
	Print Date: 12.12.2018
	SDS Number: R0703481
N-Hance™ CG13 Cationic Guar Derivatives ™ Trademark, Ashland or its subsidiaries, registered in various countries 427876	Version: 1.3

10.5 Incompatible materials

Materials to avoid : Acids
Amines
Bases
Oxidizing agents
reducing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : carbon dioxide and carbon monoxide
Hydrocarbons

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Acute toxicity

Not classified based on available information.

Components:

Fumaric acid

Acute oral toxicity : LD50 (Rat, female): 9.300 mg/kg

Acute inhalation toxicity : (Rat): > 1,3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: Not classified as acutely toxic by inhalation under GHS.

Acute dermal toxicity : LD50 (Rabbit): > 20.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks: May cause skin irritation in susceptible persons.

Components:

CATIONIC GUAR GUM, MODIFIED

Result: No skin irritation



SAFETY DATA SHEET	Revision Date: 03.04.2017
	Print Date: 12.12.2018
	SDS Number: R0703481
N-Hance™ CG13 Cationic Guar Derivatives ™ Trademark, Ashland or its subsidiaries, registered in various countries 427876	Version: 1.3

Fumaric acid
Result: Slight, transient irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: Product dust may be irritating to eyes, skin and respiratory system., Causes serious eye irritation.

Components:

CATIONIC GUAR GUM, MODIFIED

Result: Irritating to eyes.

Fumaric acid
Result: Irritating to eyes.

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

SECTION 12: Ecological information

12.1 Toxicity

Components:

CATIONIC GUAR GUM, MODIFIED



SAFETY DATA SHEET	Revision Date: 03.04.2017
	Print Date: 12.12.2018
	SDS Number: R0703481
N-Hance™ CG13 Cationic Guar Derivatives ™ Trademark, Ashland or its subsidiaries, registered in various countries 427876	Version: 1.3

Toxicity to fish	: LC50 (Cyprinus carpio (Carp)): > 100 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 54 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae	: NOEC (Blue-green algae (Anabaena flos-aquae)): > 100 mg/l Exposure time: 72 h Test Type: Growth inhibition Method: OECD Test Guideline 201 GLP: yes
Fumaric acid Toxicity to fish	: LC50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202
Toxicity to algae	: EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: Inherently biodegradable.

Components:

CATIONIC GUAR GUM, MODIFIED

Biodegradability : Result: Readily biodegradable.
Biodegradation: 95 %
Exposure time: 28 d



SAFETY DATA SHEET	Revision Date: 03.04.2017
	Print Date: 12.12.2018
	SDS Number: R0703481
N-Hance™ CG13 Cationic Guar Derivatives ™ Trademark, Ashland or its subsidiaries, registered in various countries 427876	Version: 1.3

Method: OECD Test Guideline 301D

GLP: yes

Remarks: Information given is based on data obtained from similar substances.

Fumaric acid
Biodegradability

: Result: Readily biodegradable.
Biodegradation: 67,5 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Components:

Fumaric acid
Partition coefficient: n-
octanol/water : log Pow: 0,46

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects

Product:

Additional ecological
information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste



SAFETY DATA SHEET	Revision Date: 03.04.2017
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	SDS Number: R0703481
N-Hance™ CG13 Cationic Guar Derivatives ™ Trademark, Ashland or its subsidiaries, registered in various countries 427876	Version: 1.3

handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods

RID: Not dangerous goods

14.2 UN proper shipping name

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods

RID: Not dangerous goods

14.3 Transport hazard class(es)

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods

RID: Not dangerous goods

14.4 Packing group

ADR: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods

RID: Not dangerous goods

14.5 Environmental hazards

ADR: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not applicable



SAFETY DATA SHEET	Revision Date: 03.04.2017
	Print Date: 12.12.2018
	SDS Number: R0703481
N-Hance™ CG13 Cationic Guar Derivatives ™ Trademark, Ashland or its subsidiaries, registered in various countries 427876	Version: 1.3

INTERNATIONAL MARITIME DANGEROUS GOODS: Not applicable

RID: Not applicable

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Ship Type: Not applicable

Hazard code(s): Not applicable

Pollutant Category: Not applicable

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

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

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

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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
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)

15.2 Chemical safety assessment

No data available

SECTION 16: Other information**Further information**

Revision Date: 03.04.2017

Classification procedure:

H319 Causes serious eye irritation. Calculation method

Full text of H-Statements

H319 Causes serious eye irritation.

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



SAFETY DATA SHEET	Revision Date: 03.04.2017
	Print Date: 12.12.2018
	SDS Number: R0703481
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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 (+31 10 497 5000).

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

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

TWA : Time-weighted average



SAFETY DATA SHEET	Revision Date: 03.04.2017
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	SDS Number: R0703481
N-Hance™ CG13 Cationic Guar Derivatives ™ Trademark, Ashland or its subsidiaries, registered in various countries 427876	Version: 1.3

vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

ABM : Water Hazard Class for the Netherlands
ADR : Agreement concerning the International Carriage of Dangerous Goods by Road.
ADNR: Regulation for the Carriage of Dangerous Substances on the Rhine
CLP : Classification, Labelling and Packaging
CSA : Chemical Safety Assessment
CSR : Chemical Safety Report
DNEL : Derived No Effect Level.
EINECS : European Inventory of Existing Commercial Chemical Substances.
ELINCS : European List of Notified Chemical Substances
GV: Exposure limits (DK)
PEC : Predicted Effect Concentration
PEL : Permissible Exposure Limits
PNEC : Predicted No Effect Concentration
R-pharse : Risk phrase
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulation Concerning the International Transport of Dangerous Goods by Rail
S-pharse: Safety phrase
WGK : German Water Hazard Class