

**SAFETY DATA SHEET**

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
753706

29 CFR 1910.1200 (OSHA HazCom 2012)

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

Trade name : N-Hance™ CG17  
Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered in  
various countries

**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)  
614-790-3333

EHSProductSafety@ashland.com

**Emergency telephone number**

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

**Regulatory Information Number**

1-800-325-3751

**Product Information**

614-790-3333

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Combustible Dust :

Eye irritation : Category 2A

**GHS label elements**

Hazard pictograms :



Signal Word : Warning

Hazard Statements : May form combustible dust concentrations in air.  
Causes serious eye irritation.

**SAFETY DATA SHEET**

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
753706

**Precautionary Statements****: Prevention:**

Wash skin thoroughly after handling.

Wear eye protection/ face protection.

Keep dust/air mixtures away from ignition sources.

**Response:**

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/ attention.

**Other hazards**

None known.

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

Substance / Mixture : Mixture

Chemical nature : organic

**Hazardous components**

| Chemical name                  | CAS-No.    | Classification                   | Concentration (%) |
|--------------------------------|------------|----------------------------------|-------------------|
| CATIONIC GUAR GUM,<br>MODIFIED | 65497-29-2 | Comb Dust<br>Eye Irrit. 2A; H319 | 92.3935           |

**SECTION 4. 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.



## SAFETY DATA SHEET

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
 ™ Trademark, Ashland or its subsidiaries, registered  
 in various countries  
 753706

- 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:  
 stomach or intestinal upset (nausea, vomiting, diarrhea)  
 irritation (nose, throat, airways)  
 Causes serious eye irritation.
- 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
- Unsuitable extinguishing media : High volume water jet
- 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
- 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.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

## SECTION 6. ACCIDENTAL RELEASE MEASURES



## SAFETY DATA SHEET

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
 ™ Trademark, Ashland or its subsidiaries, registered  
 in various countries  
 753706

- 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.
- 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.
- Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

## SECTION 7. HANDLING AND STORAGE

- 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.  
 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.
- For further guidance on prevention of dust explosions, refer to National Fire Protection Association (NFPA) 654: "Standard for the Prevention of Fire and Dust Explosions, from the Manufacturing, Processing and Handling of Combustible Particulate Solids".
- Conditions for safe storage : 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.

**SAFETY DATA SHEET**

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
753706

No smoking.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Hazardous components without workplace control parameters**

| Components                     | CAS-No.    |
|--------------------------------|------------|
| CATIONIC GUAR GUM,<br>MODIFIED | 65497-29-2 |

**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**

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Safety glasses

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.  
Wear resistant gloves (consult your safety equipment supplier).

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.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : granules, powder

Physical state : solid



# SAFETY DATA SHEET

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
753706

|  |   |
|--|---|
| Colour                                 | : off-white   |
| Odour                                  | : slight, mild  |
| Odour Threshold                        | : No data available                                     |
| pH                                     | : 8 - 10<br>Concentration: 1 %<br>(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                                     |
| Relative density                       | : No data available                                     |
| Density                                | : 0.6 g/cm3   |
| Bulk density                           | : ca. 610 kg/m3   |
| 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                                     |

**SAFETY DATA SHEET**

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
753706

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 reactions : Dust may form explosive mixture in air.

Conditions to avoid : Keep away from heat, flame, sparks and other ignition sources.  
excessive heat  
UV light.  
Exposure to sunlight.

Incompatible materials : Acids  
Oxidizing agents

Hazardous decomposition products : carbon dioxide and carbon monoxide  
Hydrocarbons

**SECTION 11. TOXICOLOGICAL INFORMATION**

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

**Acute toxicity**

Not classified based on available information.

**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: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
 ™ Trademark, Ashland or its subsidiaries, registered  
 in various countries  
 753706

### 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.

### 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

### 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.



**SAFETY DATA SHEET**

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
753706

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

Ecotoxicology Assessment

Acute aquatic toxicity : Acute aquatic toxicity Category 3; Harmful to aquatic life.

Chronic aquatic toxicity : Not classified based on available information.

**Components:**

CATIONIC GUAR GUM, MODIFIED:

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 : EC50 (Daphnia magna (Water flea)): 54 mg/l  
aquatic invertebrates  
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

**Persistence and degradability****Components:**

CATIONIC GUAR GUM, MODIFIED:

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 95 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D  
GLP: yes  
Remarks: Information given is based on data obtained from  
similar substances.

No data available

**Bioaccumulative potential****Components:**

No data available

**Mobility in soil****Components:**

No data available



## SAFETY DATA SHEET

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
 ™ Trademark, Ashland or its subsidiaries, registered  
 in various countries  
 753706

### Other adverse effects

No data available

### Product:

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

### Components:

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

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

Contaminated packaging : Empty remaining contents.  
 Dispose of as unused product.  
 Empty containers should be taken to an approved waste handling site for recycling or disposal.  
 Do not re-use empty containers.

## 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 |
|---------------------|

**SAFETY DATA SHEET**

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
753706

**TDG\_ROAD\_C**

Not dangerous goods

**TDG\_RAIL\_C**

Not dangerous goods

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

| Components       | CAS-No.   | Component RQ<br>(lbs) | Calculated product RQ<br>(lbs) |
|------------------|-----------|-----------------------|--------------------------------|
| SODIUM HYDROXIDE | 1310-73-2 | 1000                  | *                              |

**SAFETY DATA SHEET**

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
753706

\*: 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  
Acute Health Hazard

**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.

**Pennsylvania Right To Know**

CATIONIC GUAR GUM, MODIFIED 65497-29-2

WATER 7732-18-5

**New Jersey Right To Know**

CATIONIC GUAR GUM, MODIFIED 65497-29-2

WATER 7732-18-5

**California Prop 65** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**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)



## SAFETY DATA SHEET

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
™ Trademark, Ashland or its subsidiaries, registered  
in various countries  
753706

### SECTION 16. OTHER INFORMATION

#### Further information

Revision Date: 04/03/2017

| NFPA:   | HMIS III:  |               |          |                     |          |                        |          |
|---|--|---------------|----------|---------------------|----------|------------------------|----------|
| <p>Flammability</p> <p>Health</p> <p>Instability</p> <p>Special hazard.</p> | <table border="1"> <tr> <td><b>HEALTH</b></td><td><b>2</b></td></tr> <tr> <td><b>FLAMMABILITY</b></td><td><b>0</b></td></tr> <tr> <td><b>PHYSICAL HAZARD</b></td><td><b>0</b></td></tr> </table> <p>0 = not significant, 1 = Slight,<br/>2 = Moderate, 3 = High<br/>4 = Extreme, * = Chronic</p> | <b>HEALTH</b> | <b>2</b> | <b>FLAMMABILITY</b> | <b>0</b> | <b>PHYSICAL HAZARD</b> | <b>0</b> |
| <b>HEALTH</b>   | <b>2</b>   |               |          |                     |          |                        |          |
| <b>FLAMMABILITY</b>   | <b>0</b>   |               |          |                     |          |                        |          |
| <b>PHYSICAL HAZARD</b>  | <b>0</b>   |               |          |                     |          |                        |          |

#### NFPA Flammable and Combustible Liquids Classification

Not applicable

#### Full text of H-Statements

H319 Causes serious eye irritation.

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



## SAFETY DATA SHEET

Revision Date: 04/03/2017

Print Date: 9/7/2017

SDS Number: R0703478

Version: 1.3

N-Hance™ CG17 Cationic guar  
 ™ Trademark, Ashland or its subsidiaries, registered  
 in various countries  
 753706

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

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