SAFETY DATA SHEET

Lattice® NTC 80 Microcrystalline Cellulose and Sodium Carboxymethylcellulose

This safety data sheet complies with the requirements of:
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008

SDS # : NTC80-INBA500-B
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Code(s) NTC80-INBA500-B

Product Name Lattice® NTC 80 Microcrystalline Cellulose and Sodium Carboxymethylcellulose

Synonyms Microcrystalline cellulose (INCI Name): MCC, cellulose gel; Sodium Carboxymethylcellulose: NaCMC, CMC, SCMC, Carboxymethyl ether, Sodium CMC, Sodium salt, Cellulose gum

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

Recommended Use: Industrial

Restrictions on Use: See section 16 for more information

1.3. Details of the supplier of the safety data sheet

Supplier

DuPont Nutrition Ireland
Wallingstown
Little Island
Cork, Ireland

+353 21 451 7200 (General Information - Cork, Ireland)
sds.enablers@dupont.com (E-Mail - General Information)
***

For further information, please contact:

Contact point

E-Mail: sds.enablers@dupont.com
Phone: +1 800 255 6837; +1 913 764 8100 (General information - U.S.A.)

***

1.4. Emergency telephone number

Emergency telephone

For leak, fire, spill or accident emergencies, call:
+1 (800) 424-9300 (CHEMTREC - U.S.A.)
+1 (703) 527-3887 (CHEMTREC - Collect - All Other Countries)

+353 21 451 7200 (DuPont Plant - Cork, Ireland)
+1 (303) 595-9048 (Medical - U.S. - Call Collect)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture *Regulation (EC) No 1272/2008*

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

Hazard pictograms
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.3. Other hazards

Excessive inhalation of dust can mechanically impede respiration. Due to the hygroscopic properties of the gums, they can form a paste or gel in the airway. Aspiration or inhalation of this product could cause chemical pneumonitis.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

The product is a mixture, not a substance.***

3.2 Mixtures***

Chemical name	EC-No	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Microcrystalline cellulose	Present***	9004-34-6	-	Not classified	REACH Exempt
Sodium carboxymethylcellulose	-	9004-32-4	-	Not classified	Partial REACH Exemption

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice — When symptoms persist or in all cases of doubt seek medical advice.***

Eye Contact — Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if eye irritation develops or persists.

Skin Contact — Wash with water and soap as a precaution.

Inhalation — Remove person to fresh air. If breathing is difficult or if discomfort occurs and persists, obtain medical attention.

Ingestion — Never give anything by mouth to an unconscious person. Drink plenty of water. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed — Difficulty breathing. Cough.

4.3. Indication of any immediate medical attention and special treatment needed

Indication of immediate medical attention and special treatment needed, if necessary — Aspiration or inhalation of this product could cause chemical pneumonitis. Treatment is symptomatic and supportive.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media
None known

5.2. Special hazards arising from the substance or mixture
Avoid dust formation. Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions
Avoid dispersal of dust in the air (i.e., cleaning dust surfaces with compressed air.). Avoid breathing dust. Powder may become slippery when wet. For personal protection see section 8.

For further clean-up instructions, call DuPont Emergency Hotline number listed in Section 1 "Product and Company Identification" above.***

For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions
See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for Containment	Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
Methods for cleaning up	Sweep, vacuum or shovel into suitable containers for disposal. Nonsparking tools should be used. Washdown water is not recommended. Powder may become slippery when wet.

6.4. Reference to other sections
See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling
Handle in accordance with good industrial hygiene and safety practice. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powdered material can build static electricity when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmosphere. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment if release of airborne dust is expected.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage
Store at less than 25 °C, in tightly closed containers. Keep out of direct sunlight. Store in dry environment away from heat and sources of ignition, i.e., steam pipes, radiant heaters, hot air vents or welding sparks. Do not store with strong smelling materials.

7.3. Specific end use(s)

Risk Management Methods (RMM)
The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Chemical name	European Union	The United Kingdom	France	Spain	Germany
Microcrystalline cellulose 9004-34-6	-	STEL 20 mg/m³ STEL 12 mg/m³ TWA 10 mg/m³ TWA 4 mg/m³***	TWA 10 mg/m³***	TWA 10 mg/m³***	-
Chemical name	**Italy**	**Portugal**	**The Netherlands**	**Finland**	**Denmark**
Microcrystalline cellulose 9004-34-6	-	TWA 10 mg/m³***	-	-	-
Chemical name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
Microcrystalline cellulose 9004-34-6	-	TWA 3 mg/m³***	-	-	TWA 10 mg/m³ STEL 30 mg/m³***

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering measures It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in the handling of this product contain explosion relief vents or an explosion suppression or an oxygen-deficient environment. Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

Eye/Face Protection Safety glasses.

Hand Protection Protective gloves.

Skin and Body Protection Minimize skin contamination by following good industrial hygiene practices.

Respiratory Protection Local nuisance dust standards apply. In case of insufficient ventilation wear suitable respiratory equipment.

General information Protective engineering solutions should be implemented and in use. These recommendations apply to the product as supplied. If the product is used in mixtures, contact an appropriate protective equipment supplier or industrial hygienist for more information.

Environmental exposure controls See Section 12 for additional Ecological Information.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State Solid
Appearance Free flowing powder Dry powder
Odor Odorless
Color Off-white
Odor threshold No information available
pH 6.0 - 8.0
Melting point/freezing point No information available
Boiling Point/Range No information available
Flash point No information available
Evaporation Rate No information available

Flammability (solid, gas)	
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	No information available
Water solubility	Dispersible in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	No information available

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Relative density	No information available
Bulk density	(H2O = 1) 0.6 g/cc
K_{st}	>0 bar m/s

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not applicable

10.2. Chemical stability

Stable under recommended storage conditions.

Explosion data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	Static electricity might be sufficient to ignite dust clouds. Possibility of ignition will depend on the minimum ignition energy (MIE) and the type of operations undertaken with the material. MIE values are not provided in this SDS.

10.3. Possibility of hazardous reactions

Hazardous polymerization
Hazardous polymerization does not occur.

Hazardous reactions
None under normal processing.

10.4. Conditions to avoid

Dust formation. Excessive heat. Humid air. Sparks.

10.5. Incompatible materials

Oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: Carbon monoxide (CO) and Carbon dioxide (CO2).***

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Product Information
Product does not present an acute toxicity hazard based on known or supplied information.

Component Information

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Microcrystalline cellulose	> 5 g/kg (Rat)***	> 2 g/kg (Rabbit) > 2000 mg/kg (Rabbit)***	> 5800 mg/m³ (Rat) 4 h***
Sodium carboxymethylcellulose	= 27000 mg/kg (Rat)***	>2 g/kg (Rabbit)	>5800 mg/m³ (Rat) 4 h

Skin corrosion/irritation No information available.
Serious eye damage/eye irritation No information available.
Sensitization Not expected to be sensitizing based on the components.
Chronic toxicity Product does not present a chronic toxicity hazard based on known or supplied information.
Mutagenicity No known mutagenic or teratogenic effects.
Carcinogenicity No information available.

Reproductive toxicity This product does not contain any known or suspected reproductive hazards.
STOT - single exposure None known.
STOT - repeated exposure None noted in chronic animal studies.
Aspiration hazard Aspiration may cause chemical pneumonitis. Excessive inhalation of dust can mechanically impede respiration.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

The environmental impact of this product has not been fully investigated.

12.2. Persistence and degradability

Expected to biodegrade, based on component information.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

12.4. Mobility in soil

Mobility in soil
No information available.

Mobility
No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

None known

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with the European Directives on waste and hazardous waste.
Contaminated Packaging	Dispose of in accordance with federal, state and local regulations.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated
14.5 Marine Pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

RID

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ADR/RID

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

ICAO/IATA

14.1 UN/ID no	Not regulated
14.2 Proper Shipping Name	Not regulated
14.3 Hazard class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental Hazard	Not applicable
14.6 Special Provisions	None

Section 15: REGULATORY INFORMATION

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

European Union

Authorizations and/or restrictions on use:
This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants
Not Applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not Applicable

International Inventories

This product is intended for use as a food additive in foodstuffs within the scope of Regulation (EU) 1333/2008, or as an additive in animal feedingstuffs within the scope of Regulation (EC) 1831/2006, or for use in medicinal products for human or veterinary use within the scope of Regulation (EC) No 726/2004, Directive 2001/82/EC and Directive 2001/83/EC. When used as such, Title II (Registration) of Regulation 1907/2006 (REACH) does not apply.
***

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Microcrystalline cellulose 9004-34-6	X***	X***	X***	X***	X***	X***	X***	X***
Sodium carboxymethylcellulose 9004-32-4	X***	X***		X***	X***	X***	X***	X***

15.2. Chemical safety assessment

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS:	CAS (Chemical Abstracts Service)
Ceiling:	Maximum limit value:
DNEL:	Derived No Effect Level (DNEL)
EINECS:	EINECS (European Inventory of Existing Chemical Substances)
GHS:	Globally Harmonized System (GHS)
IATA:	International Air Transport Association (IATA)
ICAO:	International Civil Aviation Organization
IMDG:	International Maritime Dangerous Goods (IMDG)
LC50:	LC50 (lethal concentration)
LD50:	LD50 (lethal dose)
PBT:	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
RID:	Regulations Concerning the International Transport of Dangerous Goods by Rail
STEL:	Short term exposure limit
SVHC	SVHC: Substances of Very High Concern for Authorization:
TWA:	time weighted average
vPvB:	very Persistent and very Bioaccumulative
Revision date:	2019-05-01
Reason for revision:	*** Indicates updated section.***

Disclaimer
Refer to NFPA 654, *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids* **, for safe handling. DuPont Nutrition USA, Inc. believes that the information**

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Prepared By:

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Product Suitability

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End of Safety Data Sheet