



500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 11-09-2025 Version: 1.0

SECTION 1 Identification

1.1. Product identifier

Product form	: Substance
Trade name	: 500153 Eugenol USP
Chemical name	: Eugenol
CAS-No.	: 97-53-0
Product code	: 500153
Formula	: C10H12O2

1.2. Other means of identification

Synonyms	: 5-Allyl-2-hydroxy-anisol, 2-Methoxy-4-(2-propenyl)-phenol, 1-Hydroxy-2-methoxy-4-allylbenzene 2-methoxy-4-allylphenol
Other means of identification	: FEMA Number : 2467

1.3. Recommended use of the chemical and restrictions on use

Recommended use	: Concentrated aromatic and flavor ingredient which may be used in flavor and fragrance compounds according to legal and IFRA or FEMA GRAS/FDA guidelines.
Restrictions on use	: For Manufacturing Use Only

1.4. Supplier's details

Supplier

Vigon International, LLC
127 Airport Road,
East Stroudsburg,
PA 18301-9629,
USA

Telephone: +1 570-476-6300
Fax: +1 570-476-1110
Website: www.vigon.com
E-mail: regulatory@vigon.com

1.5. Emergency phone number

Emergency number	: CareChem 24x7 ACCT Number: AZELIS-29003 EUROPE: +44 1235 239670 USA: +1 202 464 2554 CANADA - +1 800 579 7421 (Toll Free) ASIA - +65 3158 1074 MOROCCO - +44 1235 239671 REST OF THE WORLD - +44 1865 407333 (English only)
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SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

GHS US classification

Eye Irrit. 2A	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Aquatic Acute 2	H401	Toxic to aquatic life.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.
Full text of hazard classes and H-statements : see section 16		

500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.2. Label elements

GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Warning

Hazard statements (GHS US)

: H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H401 - Toxic to aquatic life

H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS US)

: P261 - Avoid breathing dust, fume, gas, mist, vapours, spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.

P302+P352 - If on skin: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.

P337+P313 - If eye irritation persists: Get medical advice or attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P391 - Collect spillage.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
Eugenol (Main constituent)	CAS-No.: 97-53-0	100

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact	: mild skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. Causes mild skin irritation.
Symptoms/effects after eye contact	: Severe eye irritation. stinging. Tearing. Redness. Swelling. Blurred vision. Causes mild eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry chemical. alcohol resistant foam. Carbon dioxide. Fog.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.

5.2. Specific hazards arising from the chemical

Fire hazard	: Static charges generated by emptying package in or near flammable vapor may cause flash fire.
Hazardous decomposition products in case of fire	: Fire may produce irritating, corrosive and/or toxic gases.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.
Other information	: Use water spray to cool unopened containers.

500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
- For non-emergency personnel**
- Protective equipment : Wear recommended personal protective equipment. Keep unnecessary personnel away. Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.
- Emergency procedures : Ventilate spillage area.
- For emergency responders**
- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.
- Environmental precautions : Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Retain and dispose of contaminated wash water. Contact local authorities in case of environmental release.

6.2. Methods and materials for containment and cleaning up

- For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
- Methods for cleaning up: : Take up liquid spill into absorbent material. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.
- Large Spills: Dike the spilled material, where this is possible. Collect and dispose of spillage
- Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains.
- Small Spills: Clean surface thoroughly to remove residual contamination. Wipe up with absorbent material (e.g. cloth, fleece). Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Stop the flow of material, if this is without risk. Cover with plastic sheet to prevent spreading.
- Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against build-up of electrostatic charges, e.g earthing during loading and off-loading operations. All equipment used when handling the product must be grounded. Avoid breathing mist, vapor, dust, fume and spray.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.

500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Storage conditions	: Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.
Incompatible materials	: Alkaline metals.
Maximum storage period	: 1095 days
Packaging materials	: Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Use explosion-proof ventilation equipment to stay below exposure limits. Use explosion-proof ventilation equipment. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Wear protective clothing. Insulated gloves. Safety glasses. Face shield.

Hand protection:
Protective gloves. Chemical resistant gloves
Eye protection:
Safety glasses. Wear safety glasses with side shields (or goggles). Do not get in eyes. Eye wash fountain is recommended.
Skin and body protection:
Wear suitable protective clothing. Use of an impervious apron is recommended
Respiratory protection:
Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided.

Personal protective equipment symbol(s):



Thermal hazard protection:

Wear appropriate thermal protective clothing, when necessary.

Other information:

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: As per product specification.
Colour	: As per product specification.

500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Odour	: Characteristics
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: -9.2 – -9.1 °C
Boiling point	: 252 – 253 °C
Flash point	: > 200 °F (Closed Cup)
Flammability (solid, gas)	: No data available
Vapour pressure	: 0.01 mm Hg (25 °C)
Relative vapour density at 20°C	: No data available
Relative density	: 1.07 (25 °C)
Density	: 1.07 g/cm ³ (20 °C)
Molecular mass	: 164.2 g/mol
Solubility	: Water: Insoluble
Partition coefficient n-octanol/water (Log Pow)	: 2.27
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosive limits	: No data available
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidizing.
Particle characteristics	: No data available

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9.2. Data relevant with regard to physical hazard classes (supplemental)

Additional information : Flammability class : Combustible IIIB estimated

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

10.5. Incompatible materials

Alkaline metals.

10.6. Hazardous decomposition products

Fire may produce irritating, corrosive and/or toxic gases.

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SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

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500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Eugenol (97-53-0)	
LCL0, Dermal, Rat	5000 mg/kg (subcutaneous)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Eugenol (97-53-0)	
IARC group	3 - Not classifiable
National Toxicity Program (NTP) Status	Not listed

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Symptoms/effects after skin contact : mild skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. Causes mild skin irritation.

Symptoms/effects after eye contact : Severe eye irritation. stinging. Tearing. Redness. Swelling. Blurred vision. Causes mild eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

Eugenol (97-53-0)	
LC50 - Fish [1]	13 mg/l (Danio rerio, 96 h)
EC50 - Crustacea [1]	1.13 mg/l (Daphnia magna, 48 h)
LC50 - Fish [2]	24 mg/l (Fathead minnow (Pimephales promelas), 96 h)
LD50, crustacea	0.012 mg/kg (Invertebrates)
LC50, Fish	60.8 mg/l (96 h, Oncorhynchus mykiss)

12.2. Persistence and degradability

Eugenol (97-53-0)	
Persistence and degradability	No additional information available.

12.3. Bioaccumulative potential

Eugenol (97-53-0)	
Partition coefficient n-octanol/water (Log Kow)	2.27

500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified
Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner .
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Additional information : Do not re-use empty containers.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

14.1. UN Number

UN-No. (DOT) : UN3082
UN-No. (IMDG) : 3082
UN-No. (IATA) : 3082

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s. (Eugenol)
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Eugenol)
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s. (Eugenol)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 9
Hazard labels (DOT)



IMDG

Transport hazard class(es) (IMDG) : 9
Danger labels (IMDG)



500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

IATA

Transport hazard class(es) (IATA) : 9
Danger labels (IATA) : 9



14.4. Packing group

Packing group (DOT) : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes



Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

UN-No. (DOT) : UN3082
DOT Special Provisions (49 CFR 172.102) : 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.
146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.
173 - An appropriate generic entry may be used for this material.
335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s.," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leakproof when used as bulk packaging.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: No Limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No Limit
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

IMDG

Special provisions (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG)	: A

IATA

Special provisions (IATA)	: A97, A158, A197, A215
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
ERG code (IATA)	: 9L

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

No additional information available

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other Information

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500153 Eugenol USP

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date : 11-09-2025

Full text of hazard classes and H-statements	
Aquatic Acute 2	Hazardous to the aquatic environment — Acute Hazard, Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Sens. 1	Skin sensitization, Category 1
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.