according to Regulation (EC) No. 1907/2006



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

1.1 Product identifier

Trade name : Mixed Tocopherols 70 IP

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

Use of the Sub- : Antioxidant, Additive for the stabilisation of foods, Ingredient

stance/Mixture for capsules and/or tablets

1.3 Details of the supplier of the safety data sheet

Company : DSM Nutritional Products Europe Ltd

PO Box 2676 CH-4002 Basel

Telephone : +41618157777 Telefax : +41618157770

E-mail address of person : sds.nutritionalproducts@dsm.com responsible for the SDS

1.4 Emergency telephone number

+41 848 00 11 77 (Carechem 24 International)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

Synonyms : d-tocopherols

 $(R,R,R)-\alpha$, $(R,R,R)-\beta$, $(R,R,R)-\gamma$ + $(R,R,R)-\delta$ -tocopherol

Brief description of the prod-

uct

: Processed natural product

3.1 Substances

Hazardous components

Remarks : No hazardous ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : No hazards which require special first aid measures.

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If inhaled : Move to fresh air.

If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No specific symptoms known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam

Dry chemical

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

Unsuitable extinguishing

media

: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

: None known.

5.3 Advice for firefighters

Special protective equipment

for firefighters

: In the event of fire, wear self-contained breathing apparatus.

Further information : Standard procedure for chemical fires.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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Use personal protective equipment.

6.2 Environmental precautions

Try to prevent the material from entering drains or water courses.

6.3 Methods and material for containment and cleaning up

Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.



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6.4 Reference to other sections

For personal protection see section 8.

For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.

Advice on protection against

fire and explosion

: Take necessary action to avoid static electricity discharge.

Product will burn under fire conditions.

Hygiene measures : General industrial hygiene practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: To maintain product quality, do not store in heat or direct sun-

light.

Keep under inert gas.

Keep container tightly closed and dry.

Advice on common storage : No special restrictions on storage with other products.

7.3 Specific end use(s)

Specific use(s) : Not applicable

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses

Hand protection

: Glove material: for example nitrile rubber

Skin and body protection : Lightweight protective clothing

Respiratory protection : No personal respiratory protective equipment normally re-

quired.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : viscous, oily liquid
Colour : brownish - red

Odour : mile

Odour Threshold : No information available.

pH : No data available

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Boiling point/boiling range : $> 200 \, ^{\circ}\text{C}$ Flash point : $> 200 \, ^{\circ}\text{C}$

Evaporation rate : not determined
Lower explosion limit : not determined
Upper explosion limit : not determined
Vapour pressure : not determined
Relative vapour density : not determined

Density : 0.92 - 0.96 g/cm3 (20 °C)

Water solubility : insoluble

Solubility in other solvents : Oils and fats: soluble

Ethanol: slightly soluble

various organic solvents: completely miscible

Partition coefficient: n-

octanol/water

: log Pow > 10 (calculated value)

Ignition temperature : not determined
Thermal decomposition : No data available

Viscosity, dynamic : 120 - 210 mPa.s (60 °C)

Explosive properties : Not explosive

Oxidizing properties : Not oxidizing

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Possible incompatibility with materials listed under section 10.5.

10.4 Conditions to avoid

Exposure to air. Exposure to light. Heat

10.5 Incompatible materials

Oxidizing agents Oxygen Ferric salts Silver salts

Strong acids and strong bases

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10.6 Hazardous decomposition products

Carbon oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity : LD50 (Rat): > 4,000 mg/kg

Test performed using a similar product.

Skin irritation : slight irritation (Rabbit)

Test performed using a similar product.

Eye irritation : slight irritation (Rabbit)

Test performed using a similar product.

Sensitisation : No data available

Genotoxicity in vitro : not mutagenic (Ames test)

Test performed using a similar product.

Carcinogenicity : No indication for carcinogenicity known.

Reproductive toxicity : This information is not available.

STOT - single exposure (A-

cute exposure)

: The substance or mixture is not classified as specific target

organ toxicant, single exposure.

STOT - repeated exposure : NOEL (Oral, Rat) : >= 180 mg/kg bw/d

Sub-chronic toxicity study (90-day) Test performed using a similar product.

Aspiration toxicity : No aspiration toxicity classification

SECTION 12: Ecological information

12.1 Toxicity

No data is available on the product itself.

12.2 Persistence and degradability

Biodegradability : Not readily biodegradable.

Test performed using a similar product.

12.3 Bioaccumulative potential

Partition coefficient: n- : log Pow > 10 (calculated value)

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octanol/water

12.4 Mobility in soil

Distribution among environmental compartments

: No data available

12.5 Results of PBT and vPvB assessment

Assessment : This substance/mixture contains no components considered to

> be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or

higher.

12.6 Other adverse effects

Additional ecological informa: There is no data available for this product.

tion

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Offer surplus and non-recyclable solutions to a licensed dis-

posal company.

Empty containers should be taken to an approved waste han-Contaminated packaging

dling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks Not classified as dangerous in the meaning of transport regu-

lations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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



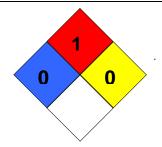
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NFPA Classification

: Health hazard: 0 Fire Hazard: 1 Reactivity Hazard: 0



15.2 Chemical safety assessment

Not applicable

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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.

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