

SYN®-TC**5038297**

Version 1.0

Revision Date 05/21/2012

Print Date 08/07/2012

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SYN®-TC

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

Use of the Substance/Mixture : Ingredient for personal care products

1.3 Details of the supplier of the safety data sheet

Company : DSM Nutritional Products
45 Waterview Blvd
US-07054-1298 Parsippany

Telephone : (908) 475-7373
Telefax : (908) 475-7406
E-mail address : sds.nutritionalproducts@dsm.com
Responsible/issuing person

1.4 Emergency telephone number

Emergency # 1-800-424-9300 (24 HR CHEMTREC)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form: viscous, liquid, Colour: colourless - light yellow - opaque, Odour: none

OSHA Hazards : NO OSHA HAZARDS

Potential Health Effects

Symptoms of Overexposure : No specific symptoms known.

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.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Additional hazards and advice

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Brief description of the product : Mixture (preparation) containing active ingredients and auxiliary substances

Hazardous components

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Component	CAS-No.	Weight percent
glycerol	56-81-5	60 - 100

SECTION 4. FIRST AID MEASURES**First aid procedures**

- General advice : No hazards which require special first aid measures.
- Inhalation : Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.
If symptoms persist, call a physician.
- Skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
- Eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
- Ingestion : 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.

Notes to physician

- Symptoms : No specific symptoms known.
- Treatment : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES**Flammable properties**

- Flash point : > 428 °F (> 220 °C)
- Lower explosion limit : not determined
- Upper explosion limit : not determined

Fire fighting

- Suitable extinguishing media : Alcohol-resistant foam
Dry chemical
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Protective equipment and precautions for firefighters

- Specific hazards during firefighting : None known.
- Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

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for firefighters

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
- Methods for containment /
Methods for cleaning up : Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE**Handling**

- Handling : For personal protection see section 8.
No special handling advice required.
- Advice on protection against
fire and explosion : Take precautionary measures against static discharges.

Storage

- Requirements for storage
areas and containers : Keep container tightly closed and dry.
- Advice on common storage : No special restrictions on storage with other products.
- Storage temperature : 36 - 46 °F (2 - 8 °C)

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

Components	CAS-No.	Value	Control parameters	Update	Basis
glycerol	56-81-5	TWA	10 mg/m ³	2010-03-01	ACGIH
	Upper Respiratory Tract irritation				
		TWA	15 mg/m ³	2007-01-01	OSHA P1
	total dust				
		TWA	5 mg/m ³	2007-01-01	OSHA P1
	respirable fraction				

Engineering measures

For technical measures see section 7.

Personal protective equipment

- Eye protection : Safety glasses
- Hand protection : Glove material: for example nitrile rubber
- Skin and body protection : Protective suit

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- Respiratory protection : No personal respiratory protective equipment normally required.
- Hygiene measures : General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

- Form : viscous, liquid
- Colour : colourless - light yellow - opaque
- Odour : none
- Odour Threshold : No information available.

Safety data

- Flash point : > 220 °C
- Ignition temperature : not determined
- Thermal decomposition : no data available
- Lower explosion limit : not determined
- Upper explosion limit : not determined
- Flammability (solid, gas) : Not classified as supporting combustion according to the transport regulations.
- Explosive properties : no data available
- Oxidizing properties : no data available
- Autoignition temperature : no data available
- pH : no data available
- Melting point/range : not determined
- Boiling point/boiling range : not determined
- Vapour pressure : not determined
- Density : not determined
- Water solubility : soluble
- Partition coefficient: n-octanol/water : not applicable
- Solubility in other solvents : Oils and fats: insoluble
- Viscosity, dynamic : not determined
- Relative vapour density : not applicable
- Relative density : 1.15 - 1.22, 20 °C

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Evaporation rate : not determined

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under recommended storage conditions.

Hazardous reactions : Possible incompatibility with materials listed under section 10.5.

Conditions to avoid : Heat.

Materials to avoid : Strong acids and strong bases
Strong oxidizing agents

Hazardous decomposition products : No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : no data available

Skin irritation : No skin irritation (human, Patch Test 48 Hrs.)
Test substance: active ingredient

Eye irritation : May irritate eyes., Test substance: active ingredient

Sensitisation : Did not cause sensitization. (human, HRIPT: Human Repeat Insult Patch Test)
Test substance: active ingredient

Carcinogenicity : This information is not available.

Genotoxicity in vitro : not mutagenic (Ames test, OECD Test Guideline 471)
Test substance: active ingredient

Reproductive toxicity : This information is not available.

STOT - repeated exposure
Chronic exposure : This information is not available.

SECTION 12. ECOLOGICAL INFORMATION**Toxicity**

No data is available on the product itself.

Persistence and degradability

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Biodegradability : no data available

Bioaccumulative potential

Bioaccumulation : no data available

Partition coefficient: n-octanol/water : not applicable

Mobility in soil

Distribution among environmental compartments : no data available

Results of PBT and vPvB assessment

Assessment : This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
: This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Other adverse effects

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

SECTION 13. DISPOSAL CONSIDERATIONS

Further information : Offer surplus and non-recyclable solutions to a licensed disposal company.

User must determine if any wastes generated exhibit hazardous characteristics as per 40 CFR Part 261 or other national / local legislation.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION**DOT**

Not dangerous goods

TDG

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

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

not applicable

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : No OSHA Hazards

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CERCLA Reportable :
 Quantity
 This material does not contain any components with a CERCLA RQ.
 SARA 311/312 Hazards : No SARA Hazards

EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO - KNOW

SARA 302 Reportable : SARA 302: No chemicals in this material are subject to the
 Quantity reporting requirements of SARA Title III, Section 302.
 This material does not contain any components with a SARA 302 RQ.
 SARA 304 Extremely : This material does not contain any components with a section
 Hazardous Substances 304 EHS RQ.
 SARA 313 Components : 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.

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a
 Class I or Class II ODS as defined by the U.S. Clean Air Act
 Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for
 Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean
 Air Act Section 12 (40 CFR 61).

The following chemical(s) are listed : glycerol 69.2 %
 under the U.S. Clean Air Act
 Section 111 SOCOMI Intermediate or
 Final VOC's (40 CFR 60.489):

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act,
 Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act,
 Section 311, Table 117.3.

US State Regulations

Massachusetts Right To
 Know

Components : glycerol 56-81-5

Pennsylvania Right To Know

Components : glycerol 56-81-5

New Jersey Right To Know

Components : glycerol 56-81-5

The components of this product are reported in the following inventories:

US.TSCA Not On TSCA Inventory
 L-Lysine, N2-(1-oxohexadecyl)-L- 623172-56-5
 lysyl-L-valyl-, bis(trifluoroacetate)
 L-Threonine, N2-(1-oxohexadecyl)- 883558-32-5
 L-lysyl-L-valyl-(2S)-2,4-
 diaminobutanoyl-,
 bis(trifluoroacetate) (salt)

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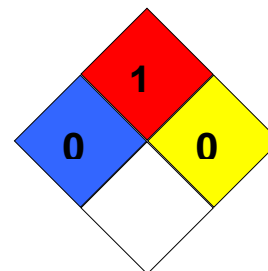
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DSL	<p>3,6,9,11-Tetraazapentacosanoic acid, 2,8-bis(2-aminoethyl)-5-(1-methylethyl)-4,7,10-trioxo-, (2S,5S,8S)-, 2,2,2-trifluoroacetate</p> <p>This product contains the following components that are not on the Canadian DSL nor NDSL lists.</p> <p>L-Lysine, N2-(1-oxohexadecyl)-L-lysyl-L-valyl-, bis(trifluoroacetate) 623172-56-5</p> <p>L-Threonine, N2-(1-oxohexadecyl)-L-lysyl-L-valyl-(2S)-2,4-diaminobutanoyl-, bis(trifluoroacetate) (salt) 883558-32-5</p> <p>3,6,9,11-Tetraazapentacosanoic acid, 2,8-bis(2-aminoethyl)-5-(1-methylethyl)-4,7,10-trioxo-, (2S,5S,8S)-, 2,2,2-trifluoroacetate 934368-60-2</p>	934368-60-2
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SECTION 16. OTHER INFORMATION**Further information**

HMIS Classification : Health hazard: 0
Flammability: 1
Physical hazards: 0

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



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.

E-mail address : sds.nutritionalproducts@dsm.com
Responsible/issuing person

Abbreviations: ACGIH = American Conference of Governmental Industrial Hygienists. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act. CFR = Code of Federal Regulations. CPR = Controlled Products Regulations. DSL = Canadian Domestic Substance List. DOT = Department of Transportation. EINECS = European Inventory of New and Existing Chemical Substances. EPA = Environmental Protection Agency. HCS = Hazardous Communication Standard. HEPA = High Efficiency Particulate Air. HMIS = Hazardous Material Identification System. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IMDG = International Maritime Dangerous Good. NFPA = National Fire Protection Association. NIOSH = National Institute of Occupational Safety and Health. NJTSR = New Jersey Trade Secret Registry. NTP = National Toxicology Program. OSHA = Occupational Safety and Health Administration. SARA = Superfund Amendments and Reauthorization Act. TDG = Transportation of Dangerous Goods. TLV =



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Threshold Limit Value. TSCA = Toxic Substance Control Act. WHMIS = Workplace Hazardous Materials Information System.