

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

### 1.1 Product identifier

Trade name : SYN®-AKE

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

Use of the Sub-stance/Mixture : Ingredient for personal care products, Skin-care

### 1.3 Details of the supplier of the safety data sheet

Company : DSM Nutritional Products Ltd.  
PO Box 2676  
CH-4002 Basel

Telephone : +41618158888  
E-mail address of person responsible for the SDS : sds.nutritionalproducts@dsm.com

### 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

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

### 3.1 Substances

Not applicable

### 3.2 Mixtures

#### Hazardous components

Remarks : No hazardous ingredients

#### Further ingredients

Chemical name	CAS-No. EC-No. Registration number	GHS Classification	Concentration [%]
glycerol	56-81-5 200-289-5		>= 60 - <= 75

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

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

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam  
Dry chemical  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### 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.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- 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.

### 6.4 Reference to other sections

For personal protection see section 8.  
For disposal considerations see section 13.

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## 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 : 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 sunlight.  
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

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
glycerol	56-81-5	TWA (Mist)	10 mg/m <sup>3</sup>	GB EH40
Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				

### 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 required.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	: viscous liquid
Colour	: colourless - pale yellow
Odour	: odourless
Odour Threshold	: No information available.
pH	: 4.5 - 5.5
Melting point/range	: not determined
Boiling point/boiling range	: ca. 110 - 115 °C (calculated value)
Flash point	: ca. 206 °C (closed cup, calculated value)
Evaporation rate	: not determined
Lower explosion limit	: not determined
Upper explosion limit	: not determined
Vapour pressure	: not determined
Relative vapour density	: Not applicable
Relative density	: 1.15 - 1.21 (at 20 °C)
Density	: not determined
Water solubility	: completely miscible
Solubility in other solvents	: Oils and fats: insoluble
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: No data available
Ignition temperature	: 434 °C Test performed using a similar product.
Thermal decomposition	: Decomposes on heating. Potential for exothermic hazard
Viscosity, dynamic	: not determined
Explosive properties	: Not explosive
Oxidizing properties	: No data available

## 9.2 Other information

Refractive index : 1.41 - 1.44 (25 °C)

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## 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

Heat

### 10.5 Incompatible materials

Strong acids and strong bases  
Strong oxidizing agents

#### 10.6 Hazardous decomposition products

No decomposition if used as directed.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg (Calculation method)
Skin irritation	: No skin irritation (human, Patch Test 48 Hrs.) Test substance: active ingredient
Eye irritation	: No eye irritation (Rabbit, OECD Test Guideline 405) Test substance: active ingredient
Sensitisation	: Did not cause sensitization. (human, HRIPT: Human Repeat Insult Patch Test) Test substance: active ingredient
Genotoxicity in vitro	: not mutagenic (Ames test, OECD Test Guideline 471) Test substance: active ingredient  : not genotoxic (Mutagenicity (micronucleus test), OECD Test Guideline 487) Test substance: active ingredient
Carcinogenicity	: No indication for carcinogenicity known.
Reproductive toxicity	: No indication for adverse effects on fertility known.
STOT - single exposure (A- cute exposure)	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	: This information is not available.
Aspiration toxicity	: No aspiration toxicity classification

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### SECTION 12: Ecological information

#### 12.1 Toxicity

Toxicity to fish	: Gobiocypris rarus (rare gudgeon) LC50 (96 h) > 121 mg/l Test substance: Active ingredient (OECD Test Guideline 203)
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## 12.2 Persistence and degradability

- Biodegradability : Not readily biodegradable.  
26.07 % (28 d)  
(OECD Test Guideline 301F)  
Test substance: active ingredient
- : Biodegradable  
Information refers to the main component.

## 12.3 Bioaccumulative potential

- Bioaccumulation : No data available
- Partition coefficient: n-octanol/water : Not applicable

## 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 information : There is no data available for this product.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Product : Offer surplus and non-recyclable solutions to a licensed disposal company.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## 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 regulations.

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

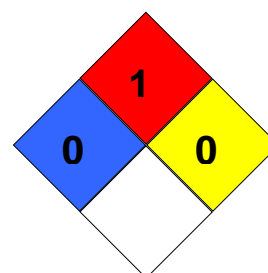
Not applicable for product as supplied.

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### SECTION 15: Regulatory information

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

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



#### 15.2 Chemical safety assessment

Not applicable

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### 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, Evalua-

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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tion, 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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