

SAFETY DATA SHEET

SECTION 1 Identification of the substance or preparation and of the company/undertaking

1.1 Product identifier

- Product Name: GAMAZYME TDS
- Product Part Number: 743146 (100 x 50 gram)

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

- Use of the substance/preparation:
- Cleaning agent

1.3 Details of the supplier of the safety data sheet

Name of Supplier:

Head Office:

Wilhelmsen Ships Service AS
Strandveien 20, N1324 Lysaker,
Norway Tel: (47) 6349 440 35

Supplier:

Wilhelmsen Ships Service AS
Willem Barentszstraat 50
3165AB Rotterdam
Telephone: +31 4877 777
Fax: +31 4877 888
The Netherlands

Other suppliers SEE SECTION 16!!!

For quotations contact your local Customer Services

-
- Responsible Person: Product HSE Manager,
- Email: Email: WSS.GLOBAL.SDSINFO@wilhelmsen.com
- Telephone: Tel.: +31 10 4877775

1.4 Emergency telephone number

Emergency Telephone: -ONLY TO BE USED IN CASE OF AN INCIDENTNCEC:+
44 1865 407333, CHEMTREC (800) 424 9300
American Chemistry Council +1 703 527 3887,
Greece +30 210 7793777Australia: +61 3 9630 0998
Giftinformasjonsentralen in Norway Tel.: +47 22591300
Wilhelmsen Ships Service, Melbourne, AUSTRALIA Emergency 24hrs: +61 3 9630 0998
FOR QUOTATIONS PLEASE CONTACT YOUR LOCAL CUSTOMER SERVICES

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

- Council Directive 1999/45/EEC Classification, packing and labelling of dangerous preparations.
- This Safety Data Sheet is provided in compliance with The Dangerous Substances Directive (67/548/EEC)
- Symbols: Xi
- Irritating to eyes and skin (R36/38)
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- Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations
- Signal Word: Warning

SECTION 2 Hazards identification (....)

- Symbols: GHS07
- Eye Irrit. 2
- Skin Irrit. 2
- Causes serious eye irritation (H319).
- Causes skin irritation (H315).

2.2 Label elements

- Signal Word:
- Eye Irrit. 2
- Skin Irrit. 2
-
- Contains:
- citric acid - Sulphamic acid - sodium carbonate - Viable bacterial cultures
- Hazard phrases
 - Causes serious eye irritation (H319).
 - Causes skin irritation (H315).
- Precautionary Phrases
 - Avoid release to the environment (P273).
 - Wear protective gloves/protective clothing/eye protection/face protection (P280).
 - IF ON SKIN: Wash with plenty of soap and water (P302+P352).
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305+P351+P338).
 - Get medical advice/attention if you feel unwell (P314).

2.3 Other hazards

- Not applicable
- Not a PBT according to REACH Annex XIII
- Odour: Mint
- Appearance: powder, blue, dispersible in water

SECTION 3 Composition/information on ingredients**3.1 Mixtures**

- citric acid
 - Concentration: >15%
 - CAS Number: 77-92-9
 - EC Number: 201-069-1
 - R/H Phrases: R36 - H319
 - Symbols: Xi, GHS07
 - Categories: Eye Irrit. 2
- Sulphamic acid
 - Concentration: >15%
 - CAS Number: 5329-14-6
 - EC Number: 226-218-8
 - R/H Phrases: R36/38, R52/53 - H319, H315, H412
 - Symbols: Xi, GHS07
 - Categories: Eye Irrit. 2, Skin Irrit. 2, Aquatic Chronic 3
 - REACH REG. NO: 01-21194886 33-28 - 01-21198467 28-23
- sodium carbonate
 - Concentration: 5-15%
 - CAS Number: 497-19-8
 - EC Number: 207-838-8
 - R/H Phrases: R36 - H319

SECTION 3 Composition/information on ingredients (....)

- Symbols: Xi, GHS07
Categories: Eye Irrit. 2
- Viable bacterial cultures
Concentration: <10%
CAS Number: Not applicable
EC Number: Not applicable
R/H Phrases: Not applicable
Symbols: Not applicable
Categories: Not applicable
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SECTION 4 First aid measures

4.1 Description of first aid measures

- IF ON SKIN: Wash with plenty of soap and water (P302+P352).
- Seek medical attention if irritation persists
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- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305+P351+P338).
- Irrigate eyes thoroughly whilst lifting eyelids
- Seek medical attention if irritation persists
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- IF SWALLOWED: rinse mouth. Do NOT induce vomiting (P301+P330+P331).
- Never make an unconscious person vomit or drink fluids
- Give 200-300mls (half pint) water to drink
- Obtain immediate medical attention
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- Inhalation is unlikely to occur
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P341).

4.2 Most important symptoms and effects, both acute and delayed

- Possible redness and irritation of affected areas
- In cases of severe exposure, breathing difficulty may develop
- May cause gastro-intestinal disturbances

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically
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SECTION 5 Fire-fighting measures

5.1 Extinguishing media

- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions
- Keep container(s) exposed to fire cool, by spraying with water

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure
- In case of fire: (P370)
- Decomposition products may include amines
- Sulphur oxides may be formed
- Nitrogen oxides may be formed

5.3 Advice for firefighters

- Substance evolves toxic fumes, wear self-contained breathing apparatus
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SECTION 6 Accidental release measures

SECTION 6 Accidental release measures (....)

6.1 Personal precautions, protective equipment and emergency procedures

- Wear protective clothing as per section 8

6.2 Environmental Precautions

- Avoid scattering in the environment
- Do not allow to enter public sewers and watercourses
- Do not flush spilt material into any public water system

6.3 Methods and material for containment and cleaning up

- Sweep or shovel-up spillage and remove to a safe place
- Flush spill area with copious amounts of water

6.4 Reference to other sections

- See Section 13
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SECTION 7 Handling and storage

7.1 Precautions for safe handling

- Wear protective clothing as per section 8
- Do not get in eyes, on skin, or on clothing (P262).

7.2 Conditions for safe storage, including any incompatibilities

- Keep in a cool, dry, well ventilated place

7.3 Specific end use(s)

- Contact supplier for further information
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SECTION 8 Exposure controls/personal protection

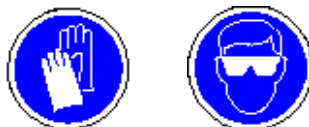
8.1 Control parameters

- No exposure limits have been set for this substance

8.2 Exposure controls

- No special precautions are required for this product

8.3 Occupational exposure controls



- Wear suitable protective clothing, including eye/face protection and gloves (plastic or rubber are recommended)
 - Respiratory protection may be required under exceptional circumstances when excessive air contamination exists
 - Wear suitable dustmask e.g. to BS 2091
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SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Odour: Mint
- Appearance: powder, blue, dispersible in water
- Boiling point - not applicable
- Water solubility ~100 g/l
- Density 1 - 1,1 g/cm³
- pH1,5 at 1 % concentration

9.2 Other information

- None
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SECTION 10 Stability and reactivity

10.1 Reactivity

- This article is considered stable under normal conditions

10.2 Chemical stability

- Considered stable under normal conditions

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose

10.4 Conditions to avoid

- Avoid contact with acids and alkalis

10.5 Incompatible materials

- Incompatible with acids and alkalis

10.6 Hazardous Decomposition Products

- In case of fire: (P370)
 - Decomposition products may include amines
 - Decomposition products may include ammonia
 - Decomposition products may include Nitrous gases (NOX)
 - Decomposition products may include sulphur
 - Decomposes >205 oC (melting point) and liberates sulphur dioxide and nitrogen.
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SECTION 11 Toxicological information

11.1 Information on toxicological effects

- LD50 (oral, rat) (Sulphamic acid) 3160 mg/kg
- LD50 (oral, rat) (Citric acid) 3000 mg/kg

11.2 Contact with eyes

- Causes redness and irritation

11.3 Contact with skin

- Causes redness and irritation

11.4 Ingestion

- May cause gastro-intestinal disturbances

11.5 Inhalation

- In cases of severe exposure, irritation may develop
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SECTION 12 Ecological information

12.1 Toxicity

- LC50 (fish) (Sulphamic acid) 70,3 mg/l (96 hr)
- LC50 (fish) (Citric acid) 440-760 mg/l (96 hr)
- This product contain an acidic component which may cause a low pH-value. Effect depends on waterquality and the organisms tolerance due to pH-value
- This product contains components which are classified in the EU as dangerous for the environment.

12.2 Persistence and degradability

- Its main ingredients will either dissolve rapidly and dissociate in water or are readily/inherently biodegradable.
- If this substance is discharged at low concentrations into an adapted biological effluent treatment plant, the degrading action of the activated sludge will not be affected

12.3 Bioaccumulation Potential

- Not applicable
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SECTION 12 Ecological information (....)

12.4 Mobility in soil

- No information available

12.5 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII

12.6 Other Adverse Effects

- No information available
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SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, state or national legislation

13.2 Classification

- EU Waste class: 06.01.06
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SECTION 14 Transport information

Not classified as hazardous for transport

14.1 UN

- UN No.: Not applicable
- Proper Shipping Name: Not applicable
- Hazard Class: Not applicable
- Packing Group: Not applicable

14.2 Environmental hazards

- Not Classified

14.3 Special precautions for user

- Not Classified

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

- Not applicable

14.5 Road/Rail (ADR/RID)

- ADR UN No.: Not applicable
- Proper Shipping Name: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- ADR subrisk: Not applicable
- ADR Flashpoint: Not applicable

14.6 Sea (IMDG)

- IMDG UN No.: Not applicable
- Proper Shipping Name: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable
- IMDG EmS: Not applicable
- IMDG subrisk: Not applicable
- IMDG Flashpoint: Not applicable

14.7 Air (ICAO/IATA)

- ICAO Un No.: Not applicable
 - Proper Shipping Name: Not applicable
 - ICAO Hazard Class: Not applicable
 - ICAO Packing Group: Not applicable
 - ICAO subrisk: Not applicable
 - ICAO Flashpoint: Not applicable
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SECTION 14 Transport information (....)

14.8 DOT / CFR (US Department of Transportation)

- Identification Number: Not applicable
 - DOT Proper Shipping Name: Not applicable
 - DOT Labels: Not applicable
 - Product RQ (lbs): Not applicable
 - Hazardous Material: Not applicable
 - Hazard Class: Not applicable
 - DOT subrisk: Not applicable
 - DOT Flashpoint: Not applicable
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SECTION 15 Regulatory information

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

- This Safety Data Sheet has been prepared in accordance with article 31 and annex II in REACH and Directive 453/2010/EU.
- Council Directive 1999/45/EEC Classification, packing and labelling of dangerous preparations.
- Refer to current The Dangerous Substances Directive (67/548/EEC)
- Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations
- Microbial classification: All the bacteria contained in this formulation are of group 1 according to Directive 2000/54/EC (on the protection of workers from risks related to exposure to biological agents at work). Microorganisms from group 1 are unlikely to cause a human disease. When handling the product, precautions described in Annex VI of Directive 2000/54/EC have to be taken into consideration in order to make a risk assessment. Annex VI: Containment principles for industrial processes involving group 2, 3 or 4 biological agents
- Norwegian Productregistration no: 52236 (MIK)

15.2 Chemical Safety Assessment

- None
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SECTION 16 Other information

Text not given with phrase codes where they are used elsewhere in this safety data sheet:- H315: Causes skin irritation. H319: Causes serious eye irritation. H412: Harmful to aquatic life with long lasting effects. R36: Irritating to eyes. R36/38: Irritating to eyes and skin. R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents

The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer

The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties

SECTION 16 Other information (....)

The most up-to-date version of this MSDS can be found on www.wilhelmsen.com/shipsservice

OTHER CONTACT INFORMATION MAJOR CHEMICAL OFFICES

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Wilhelmsen Ships Service INC 701 Ashland Ave. Ashland Center Two, Bay 12 US- 19032 Folcroft Pennsylvania United States Tel (+1) 610 586 7801 Fax (+1) 215 701 0646

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