

Safety Data Sheet as per Globally Harmonized System (GHS)

Galsoft TiLS (G)

Version No. 1 Date of revision: November 21, 2019

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

GHS Product identifier

Trade Name : Galsoft TiLS (G)

Chemical identity of ingredients that contribute to classification : Lauroyl Sarcosine, Triisopropanolamine

Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Ingredient in Personal and Home Care products

Supplier's details : Galaxy Surfactants Limited
C-49/2, TTC Industrial Area
Pawne, Navi Mumbai, 400703, India
Tel: +91-22-27616666/+91-22-39135500
e-mail: galaxy@galaxysurfactants.com

Emergency phone number : For product information: +91-9867673376 / +91-9967540569
(Language: English)
For Incident (Spill, Leak, Fire, Exposure, or Accident)
CHEMTREC (Day or Night): +1 703-741-5970 / 1-800-424-9300

2. HAZARD IDENTIFICATION

Classification of the substance or mixture:

Acute inhalation toxicity Category 4; H332

Eye irritation Category 2A; H319

Acute aquatic toxicity Category 3; H402

GHS label elements, including precautionary statements

Hazard pictogram:



Signal word: Warning

Hazard statement(s):

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H402: Harmful to aquatic life.

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Precautionary statement(s):

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

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

P501: Dispose off contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification : Not known

3. COMPOSITION/INFORMATION ON INGREDIENTS

| INCI/Chemical Name | Synonyms | CAS Number | EC Number | % concentration |
|---------------------|--|------------|-----------|-----------------|
| Lauroyl Sarcosine | N-lauroylsarcosine; 2-(N-methyldodecanamido)acetic acid | 97-78-9 | 202-608-3 | < 25 |
| Triisopropanolamine | 1,1',1''-nitritotripropan-2-ol; 1-[bis(2-hydroxypropyl)amino]propan-2-ol | 122-20-3 | 204-528-4 | < 25 |

4. FIRST-AID MEASURES

Description of necessary first-aid measures

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| Inhalation | : Remove to fresh air. Seek medical advice, if necessary |
| Skin contact | : Flush with soap and plenty of water for at least 15 minutes. Seek medical advice, if necessary |
| Eye contact | : Flush for at least 15 minutes under running water with eyelids held open forcibly. Seek medical advice, if necessary |
| Ingestion | : Immediately rinse mouth and then drink small quantities of water. Do not induce vomiting. Seek medical attention |

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Most important symptoms/effects,
acute and delayed

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|--|---------------------------------|
| Inhalation | : Harmful if inhaled |
| Eye contact | : Causes serious eye irritation |
| Indication of immediate medical attention and special treatment needed, if necessary | |
| Treatment | : Treat symptomatically |

5. FIRE- FIGHTING MEASURES

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| Suitable extinguishing media | : Dry chemical powder, water spray, carbon dioxide, foam |
| Unsuitable extinguishing media | : High pressure water jet |
| Specific hazards arising from the chemical | : Development of hazardous combustion products like oxides of carbon, nitrogen and various hydrocarbons possible in the event of fire |
| Special protective equipment and precautions for fire-fighters | : Wear personal protective equipment and self-contained breathing apparatus |

6. ACCIDENTAL RELEASE MEASURES

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| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment. Wash hands after exposure with the product. Avoid inhalation. Avoid contact with skin, eyes and clothing. Provide adequate ventilation. Take off contaminated clothing and wash it before reuse |
| Environmental precautions | : Do not discharge into drains or waterways |
| Methods and material for containment and cleaning up | : Small spill: Absorb with suitable absorbent material. Collect in suitable and properly labeled container. Large spill: Contain spilled material if possible. Pump into suitable and properly labeled containers. Dispose off absorbed material/collected material in accordance with regulations |

7. HANDLING AND STORAGE

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| Precautions for safe handling | : Follow general occupational hygiene such as, wash hands after use. Do not eat, drink or smoke in work areas. Remove contaminated clothing. Avoid spill. Follow safe procedures for loading and un-loading of product |
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| Conditions for safe storage, including any incompatibilities | : Store the material in clean and dry place at 20-30°C, away from moisture, direct heat, sunlight and flame. Product may solidify at < 10°C. If it solidifies, keep the carboy/IBC in hot room/water to raise the temperature up to 20-30°C. Avoid direct heating. Color deterioration can occur under conditions of direct heat/sunlight, moisture contamination, storage at > 30°C and/or outside the pH range 6.5-7.5. Hydrolysis may occur beyond pH range 4.5-8.5 and at > 40°C. Once carboy/IBC is opened, use the product within a week. In original sealed condition, when stored as suggested, shelf life of the product is at least six months. Stacking of carboys (50 litre): Palletized: 1+1 while transport and single pallet during storage. Non-palletized: 1+4 while transport and single carboy during storage Stacking of carboys (210 litre): Palletized: 1+1, both while transport and during storage Stacking of IBC: 1+1, both while transport and during storage |
| Suitable packing materials | : HMHDPE carboys and IBC |
| Unsuitable packing materials | : Not known |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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| Control parameters | |
| Occupational exposure limits | : Not known |
| Biological limit values | : Not known |
| Appropriate engineering controls | : Proper plant design, technical measures and working operations should minimize human exposure |
| Individual protection measures, such as personal protective equipment (PPE) | : Eye/face protection: Safety goggles Skin protection: Apron, rubber gloves and shoes Respiratory protection: Suitable mask |

9. PHYSICAL AND CHEMICAL PROPERTIES

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|-----------------|---------------------|
| Appearance | |
| Physical state | : Clear liquid |
| Colour | : Yellow to amber |
| Odour | : Fatty |
| Odour threshold | : No data available |

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| pH (1% aqueous dispersion) | : 6.5 - 7.5 at 25°C |
| Freezing point | : < 10°C |
| Initial boiling point and boiling range | : No data available |
| Flash point | : > 100°C |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : Not applicable |
| Upper/lower flammability or explosive limits | : Not applicable |
| Vapour pressure | : No data available |
| Vapour density | : No data available |
| Relative density | : 0.9400 - 0.9800 at 25°C |
| Solubility(ies) | : Insoluble in water; forms emulsion Soluble in alcohol and vegetable oil |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity (Brookfield, #2, LVT, 20 rpm) | : 1500 cP maximum, at 25°C |

10. STABILITY AND REACTIVITY

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| Reactivity | : No hazardous reactions, if stored and handled as prescribed (Refer Section 7) |
| Chemical stability | : Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure |
| Possibility of hazardous reactions | : Not anticipated when used or handled as prescribed |
| Conditions to avoid | : Moisture, sunlight, heat, flame and other sources of ignition |
| Incompatible materials | : Do not subject to water, acids and basic materials |
| Hazardous decomposition products | : Will not form, if stored or handled as prescribed |

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11. TOXICOLOGICAL INFORMATION

Toxicological information of Lauroyl Sarcosine

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| Acute oral toxicity (Rat) | : LD ₅₀ : > 5000 mg/kg bw (OECD Guideline 401) Read-across approach |
| Acute dermal toxicity (Rat) | : LD ₅₀ : > 2000 mg/kg bw (OECD Guideline 402/EU Method B.3) Read-across approach |
| Acute inhalation toxicity (Rat) | : LC ₅₀ (4 h): > 1 - ≤ 5 mg/l air (aerosol) (34.5% aqueous solution) (OECD Guideline 403/EU Method B.2/EPA OPPTS 870.1300) Read-across approach |
| Skin corrosion/irritation | : Irritating |
| Serious eye damage/irritation | : Irritating |
| Respiratory or skin sensitization (Guinea pig) | : Not sensitizing (EU method B.6/equivalent or similar to OECD Guideline 406) Read-across approach |
| Germ cell mutagenicity | |
| Mammalian cell gene mutation assay (in-vitro) | : Negative (OECD Guideline 476/EU Method B.17) Read-across approach |
| In vitro mammalian chromosome aberration test | : Negative (OECD Guideline 473/EU Method B.10) Read-across approach |
| Bacterial reverse mutation assay (in-vitro) | : Negative (Equivalent or similar to OECD Guideline 471) Read-across approach |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified Toxicity to reproduction (Rat): NOAEL: 1000 mg/kg/bw/day NOAEL: 250 mg/kg/bw/day (systemic) (OECD Guideline 421) Read-across approach |
| STOT-single exposure | : Not classified |

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| STOT-repeated exposure | : Not classified Repeated dose toxicity: oral (Rat): NOAEL: ≥ 1000 mg/kg bw/day Read-across approach Repeated dose toxicity: oral (Rat): NOEL: 30 mg/kg bw/day NOAEL: 250 mg/kg bw/day (OECD Guideline 408) Read-across approach |
| Aspiration hazard | : Not classified |
| Toxicological information of Triisopropanolamine | |
| Acute oral toxicity (Rat) | : LD ₅₀ : 4000 mg/kg bw (Comparable to OECD Guideline 401) |
| Acute dermal toxicity (Rabbit) | : LD ₅₀ : > 5000 mg/kg bw (Fixed dose procedure) |
| Acute inhalation toxicity (Mouse) | : LC ₀ (3 h): 1070 mg/m ³ air (aerosol) |
| Skin corrosion/irritation (Rabbit) | : Not irritating (OECD Guideline 404) |
| Serious eye damage/irritation | : Irritating |
| Respiratory or skin sensitization (Guinea pig) | : Not sensitizing (Equivalent or similar to EPA OPP 81-6) |
| Germ cell mutagenicity | |
| In vitro mammalian chromosomal aberration test | : Negative (OECD Guideline 473) |
| Bacterial reverse mutation assay (in vitro) | : Negative (Equivalent or similar to OECD Guideline 471) |
| Mammalian erythrocyte micronucleus test (in vivo) | : Negative (OECD Guideline 474) |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified Toxicity to reproduction (Rat) NOAEL: 673 mg/kg bw/day (OECD Guideline 422) Developmental toxicity (Rat): NOAEL: 400 mg/kg bw/day (OECD Guideline 414) |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |

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| | <p>Repeated dose toxicity: Oral (Dog): NOAEL: \geq 7500 ppm (Equivalent to 272 and 288 mg/kg bw/day for males and females, respectively) (U.S. FDA Toxicological Principles for the Safety Assessment of Direct Food Additives and Color Additives Used in Food-21 CFR 314.50(d)(2))</p> <p>Repeated dose toxicity: Oral (Rat): NOAEL: 100 mg/kg/bw/day (Equivalent or similar to OECD Guideline 407)</p> <p>Repeated dose toxicity: Dermal (Rat): NOAEL: \geq 3000 mg/kg bw/day (systemic toxicity) NOAEL: 300 mg/kg bw/day (local toxicity) (OECD Guideline 410)</p> |
| Aspiration hazard | : Not classified |
| Information on the likely routes of exposure | : Oral, dermal and inhalation |
| Symptoms related to the physical, chemical and toxicological characteristics | : Inhalation: Harmful if inhaled Eye contact: Causes serious eye irritation |
| Delayed and immediate effects and also chronic effects from short and long term exposure | : Short term exposure: No data available Long term exposure: No data available |

12. ECOLOGICAL INFORMATION

Ecological information of Lauroyl Sarcosine

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| Short-term toxicity to fish | : Danio rerio LC ₅₀ (96 h): 107 mg/l (OECD Guideline 203) Read-across approach |
| Long-term toxicity to fish | : No data available |
| Short-term toxicity to aquatic invertebrates | : Daphnia magna EC ₅₀ (48 h): 29.7 mg/l (OECD Guideline 202) Read-across approach |
| Long-term toxicity to aquatic invertebrates | : No data available |
| Toxicity to aquatic algae | : Desmodesmus subspicatus EC ₅₀ (72 h): 79 mg/l (based on growth rate) EC ₅₀ (72 h): 39 mg/l (based on yield) NOEC (72 h): 9.2 mg/l (based on growth rate) (OECD Guideline 201/EU Method C.3) Read-across approach |

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| Persistence and degradability | : Readily biodegradable; 82% after 28 days (CO ₂ evolution) (ISO Guideline No 14593) Read-across approach |
| Bioaccumulative potential | : BCF: 3.16 L/kg (Regression based estimate) (QSAR; Calculation based on BCFBAF v3.01) BCF: 150.7 L/kg (Arnot Gobas (including biotransformation rate estimates, upper trophic)) (QSAR; Calculation based on BCFBAF v3.01) |
| Mobility in soil | : Adsorption coefficient: Log K _{oc} : 2.43 - 3.91 (Calculation based on QSAR model in Franco and Trapp, 2008) |
| Other adverse effects | : No data available |

Ecological information of Triisopropanolamine

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|--|---|
| Short-term toxicity to fish | : Cyprinus carpio LC ₅₀ (96 h): > 1000 mg/l (EU Method C.1) |
| Long-term toxicity to fish | : No data available |
| Short-term toxicity to aquatic invertebrates | : Daphnia magna EC ₅₀ (48 h): 857 mg/l (EU Method C.2) |
| Long-term toxicity to aquatic invertebrates | : No data available |
| Toxicity to aquatic algae | : Desmodesmus subspicatus EC ₅₀ (72 h): 710 mg/l (based on growth rate) EC ₅₀ (72 h): 50 mg/l (based on cell number) EC ₁₀ (72 h): 9.4 mg/l (based on growth rate) EC ₁₀ (72 h): 1.3 mg/l (based on biomass) (EU Method C.3) |
| Persistence and degradability | : < 10% in 28 days (DOC removal); poorly eliminated from water (OECD Guideline 302 B) 0% in 28 days (O ₂ consumption); under test conditions no biodegradation observed (OECD Guideline 301 F) 18% in 28 days (DOC removal); Inherently biodegradable (OECD Guideline 301 A) 9.8% in 28 days (TOC removal); under test conditions no biodegradation observed (OECD Guideline 302 C) |

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|---------------------------|--|
| Bioaccumulative potential | : Cyprinus carpio BCF: < 0.57 (Concentration in environment / dose: 0.25 mg/l) BCF: < 0.06 (Concentration in environment / dose: 2.5 mg/l) (OECD Guideline 305 C) |
| Mobility in soil | : Significant adsorption to solid soil phase is not to be expected |
| Other adverse effects | : Not known |

13. DISPOSAL CONSIDERATIONS

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| Disposal methods | : Dispose off contents/container in accordance with local/regional/ national/international regulations |
|------------------|---|

14. TRANSPORT INFORMATION

Land transport

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|----------------------------|---|
| ADR/RID | : Not classified as dangerous goods as per transport regulation |
| UN Number | : Not applicable |
| UN proper shipping name | : Not applicable |
| Transport hazard class(es) | : Not applicable |
| Packing group | : Not applicable |
| Environmental hazards | : Not applicable |

Inland water ways transport

| | |
|----------------------------|---|
| ADN | : Not classified as dangerous goods as per transport regulation |
| UN Number | : Not applicable |
| UN proper shipping name | : Not applicable |
| Transport hazard class(es) | : Not applicable |
| Packing group | : Not applicable |
| Environmental hazards | : Not applicable |

Sea transport

| | |
|----------------------------|---|
| IMDG code | : Not classified as dangerous goods as per transport regulation |
| UN Number | : Not applicable |
| UN proper shipping name | : Not applicable |
| Transport hazard class(es) | : Not applicable |
| Packing group | : Not applicable |
| Marine pollutant | : Not applicable |

Air transport

| | |
|-------------------------|---|
| ICAO-TI/IATA-DGR | : Not classified as dangerous goods as per transport regulation |
| UN Number | : Not applicable |
| UN proper shipping name | : Not applicable |

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Transport hazard class(es) : Not applicable
Packing group : Not applicable
Environmental hazards : Not applicable

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question : Refer to all applicable national, international and local regulations or provisions

16. OTHER INFORMATION

Revision Number : GHS / Revision 0
Indication of changes : Not applicable
Legend/acronym : GHS - Globally Harmonized System
STOT - Specific Target Organ Toxicity
Source of information : In-house and literature

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