TENZI Sp. z o.o.
SKARBIMIERZYCE 20
72-002 DOŁUJE

GRAN MFS AGD

Material Safety Data Sheet (MSDS)

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Version: 1.0

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: GRAN MFS AGD
1.2 Relevant identified uses of the substance or mixture and uses advised against: The product is intended for cleaning the track frothing milk in coffee machines.
1.3 Details of the supplier of the safety data sheet:
TENZI Sp. z o.o., 72-002 Dołuje, Skarbimierzyce 20, e-mail: info@tenzi.pl, www.tenzi.pl, tel. +48 91 3119777, fax. +48 91 3119779 E-mail address for a competent person responsible for MSDS: technolog@tenzi.pl
1.4 Emergency telephone number: +48 91 31 19 777 (mon. - fri. 8am-4pm) or 112

SECTION 2. HAZARDS IDENTYFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008
Eye Irrit. 2 H319 – Causes serious eye irritation
Aquatic Chronic 3 H412 – Harmful to aquatic life with long lasting effects

2.2. Label elements
According to 1272/2008/EC*

Hazard symbols:

and signal words: **CAUTION**

Hazard statements:
H319 – Causes serious eye irritation
H412 – Harmful to aquatic life with long lasting effects

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

2.3. Other hazards
Substance does not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances
Not applicable

3.2 Mixture

Composition (according to: 648/2004/EC): <5% nonionic and cationic surfactants, excipients not classified as dangerous; contains phosphoric acid and sulfamic acid

Product / ingredient name	Concentration [% weigh]	CAS / EC	Index-No.	REACH registrati	Classification Regulation (EC) No.

				on number	1272/2008 [CLP]
Phosphoric Acid (75%)	< 4	7664-38-2 231-633-2	015-011-00-6	01-21194859 24-24-XXXX	Skin Corr. 1B H314, Met. Corr. 1 H290,
Sulfamic acid	< 2	5329-14-6 226-218-8	016-026-00-0	01-21194886 33-28-XXXX	Skin Irrit. 2 H315, Eye Irrit. 2 H319, Aquatic Chronic 3 H412
Non-ionic surfactants	< 2	68439-54-3 polymer	---	---	Eye Dam. 1 H318, Acute Tox. 4 H302
Cationic Surfactant	< 0,25	68424-85-1 270-325-2	---	01-21199651 80-41-XXXX	Acute Tox. 4; H302, Skin Corr. 1B; H314, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

The full texts of phrases and H-symbols are in 16th section.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures
Inhalation– In case of inhalation poisoning symptoms (cough, dyspnea, dizziness) move to fresh air. Get medical attention.
Skin contact– If product comes in contact with the skin immediately remove all contaminated clothing and flush exposed area with large amounts of water. Consult a doctor in case burns or irritation occur.
Eye contact– Flush eyes with running water at least 15 minutes keeping eyelids open. Get medical attention
Ingestion– DO NOT induce vomiting. Give a lot water to drink. DO NOT give any neutralizing agents. Immediately contact a doctor and show this MSDS or label.

4.2. Most important symptoms and effects, both acute and delayed
Inhalation– long-term exposures or un-well ventilated area may cause: drowsiness, dizziness, upper respiratory tract irritation.
Skin– long-term exposures may cause skin irritation.
Eyes – cause eyes irritation.
Ingestion– if swallowed, may cause irritation of the mucous membrane.

4.3.Indication of any immediate medical attention and special treatment needed
Obtain medical attention. Self-contained eye wash or shower should be readily available.

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media
Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and surrounding environment.
Extinguishing media which shell not be used for safety reason: DO NOT use a solid water stream.
5.2. Special hazards arising from the substance or mixture
Product is non-flammable.
5.3. Advice for firefighters
Firefighters should wear self-contained breathing apparatus and full protective clothing. In case of fire warn the people nearby. Evacuate unprotected and untrained personnel from hazard area. Notify relevant emergency services. If possible, remove the containers away from the influence of fire and high temperature. Water may be used to keep fire-exposed containers cool until fire is out. The after burning residues should be removed.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: chemical resistant gloves thickness of 0.11 mm, safety glasses
For emergency responders: protective clothes, self-contained breathing apparatus, chemical resistant gloves thickness of 0.11 mm, safety glasses
Avoid skin and eyes contact. Provide proper ventilation.

6.2. Environmental precautions

Do not allow to release drains, groundwater and surface water. Avoid subsoil penetration.

6.3. Methods and material for containment and cleaning up

In case of unexpected release substance into environment inform on emergency, keep away from source of ignition. Prevent spills from entering sewers, surface water or groundwater. If it is possible confine and contain the spill by closing liquid flow, damage container put into protect leak proof wrapping. For large spill make a dike around the outside edges of the spill. Clean-up materials store for disposal as hazardous waste. Decontaminate polluted area with water. For small spill use absorbent materials (sand solid, sawdust, fines limestone) and store for disposal as hazardous waste. Decontaminate polluted area with water.

6.4. Reference to other sections

See section 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Please note that you need to be carefully while working with this product. Use personal protection recommended in section 8.
Mix only with water. DO NOT mix with other chemical substances.
People with skin allergy or respiratory system problems should not have contact with this product.
After usage keep container tightly closed. Keep away from unauthorized people.
Use only adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Store in a tightly close, original plastic container. Store this product in dry environment that will be maintained at temperature between 5^0C - 35^0C. Store in good ventilated area with easy clean alkali resistant floor. DO NOT expose to sunlight. Keep away from heat, sparks, flame and source of ignition.

7.3. Specific end use(s)

No data available

SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1. Control parameters

Please check any national occupational exposure limit values in your country.

DNEL /PNEC values for substances (according to MSDS or Chemical Safety Report):
Phosphoric Acid (data for high concentrations substance):
No data available
Sulfamic acid (data for high concentrations substance):
DNEL Exposure frequency: long term, Exposure route: dermal, Value: 10 mg/kg bw/day , Group: workers Type of effect: systemic effect
DNEL Exposure frequency: long term, Exposure route: oral, Value: 5 mg/kg bw/day, Group: general population /consumers, Type of effect: systemic effect
PNEC Aqua (fresh water): 0,048 mg/l
PNEC Aqua (marine water): 0,0048 mg/l
PNEC Soil: 0,00638 mg/kg
PNEC Sediment (freshwater): 0,173 mg/kg
PNEC Sediment (marine water): 0,0173 mg/kg E
PNEC Sewage treatment plant: 2 mg/l
Non-ionic surfactants (data for high concentrations substance):
No data available
Cationic Surfactant (data for high concentrations substance):
- C12-C16 chloride, alkylbenzyldimethylammonium:
DNEL Exposure frequency: long term, Exposure route: inhalation, Value: 3,96 mg/m^3, Group: workers, Type of effect: systemic effect
PNEC Aqua (fresh water) 0,0009 mg/l
PNEC Aqua (marine water) 0,00009 mg/l

NOTE: When the concentration of substance is known, personal protective equipment should be chosen based on: substance concentration on a workplace, exposure time and operations performed by the employee. In emergency situations, if substance concentration on the workplace is unknown, personal protection of highest class level should be used.

8.2. Exposure controls
RESPIRATORY PROTECTION: not be required
HAND PROTECTION: not be required
EYE/FACE PROTECTION: safety glasses
SKIN PROTECTION: not be required

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties
APPEARANCE/FORM: transparent liquid
ODOUR: characteristic for this composition
ODOUR THRESHOLD : no data available
pH – 1±1
MELTING/FREEZING POINT: not identified
INITIAL BOILING POINT AND BOILING RANGE: not identified
FLASH POINT: not identified
EVAPORATION RATE: not identified
FLAMMABILITY (SOLID,GAS): not identified
UPPER/LOWER FLAMMABILITY (UEL/LEL): not identified
VAPOUR PRESSURE: not identified
VAPOUR DENSITY: not identified
RELATIVE DENSITY: 1,260÷0,020 g/cm^3
SOLUBILITY:
a) WATER – soluble
b) ORGANIC SOLVENT - not identified
PARTITION COEFFICIENT N-OCTANOL/WATER: not identified
AUTO-IGNITION TEMPERATURE: not identified
DECOMPOSITION TEMPERATURE: not identified
VISCOSITY: not identified
EXPLOSIVE PROPERTIES: not identified
OXIDISING PROPERTIES: not identified

9.2. Other information
REFRACTIVE INDEX – 5% Brix* ± 5%

* - Degrees Brix is the content of an aqueous solution. One degree Brix is 1 gram of sucrose in 100 grams of solution and represents the strength of the solution as percentage by weight (%w/w)

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available
10.2 Chemical stability
Stable under recommended storage conditions (see point 7)
10.3 Possibility of hazardous reactions
Reacts with most metals to release hydrogen gas which can form explosive mixtures with air.
10.4 Conditions to avoid
Avoid storage unprotected from heat and not well-ventilated area. Avoid long-term expose to sunlight.
10.5 Incompatible materials
Avoid contact with bases, preparations which contain chlorine, strong oxidizers.
10.6 Hazardous decomposition products
Phosphorus oxides, nitrogen oxides, carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

ACUTE TOXICITY:
-INHALATION: long-term exposures or un-well ventilated area may cause upper respiratory tract irritation.
-DIGESTIVE SYSTEM: if swallowed, may cause irritation of the mucous membrane.
-SKIN CONTACT: long-term exposures may cause skin irritation.
-EYE CONTACT: cause eyes irritation.

ATEmix= 23285 (Acute toxicity, oral)

DETAILS OF PARTICULAR COMPONENTS (according to substances's MSDS):
Phosphoric acid (data for high concentrations substance):
LD50 (oral, rat): 1530 mg/kg
LD 50 (rabbit, skin): 2740 mg/kg
Skin corrosion/irritation: extremely corrosive, destroys tissue, causes burns.
Serious eye damage/eye irritation: may cause irreversible eye damage.
Specific target organ toxicity (single exposure): causes burns of the upper respiratory tract.
Specific target organ toxicity (repeated exposure): cause inflammation of the skin, chronic inflammation of the upper respiratory tract.
Sulfamic acid (data for high concentrations substance):
LD 50: 3160 mg/kg (rat, oral)
Eye corrosion/irritation: severe irritant (rabbit, OECD 405)
Skin corrosion/irritation: severe irritant (rabbit, OECD 405)
Non-ionic surfactants (data for high concentrations substance):
Harmful if swallowed. May cause serious, sometimes irreversible, eye damage.
Details for Alcohol ethoxylates C8-18 (>5-20EO):
LD50>300 - 2000 mg/kg (rat, oral)
LD50> 2000 mg/kg (rat, skin)
Cationic Surfactant (data for high concentrations substance):
C12-C16 chloride, alkylbenzyldimethylammonium:
LD50> 300-2000 mg /kg (rat, oral)
Skin corrosion / irritation: causes serious burns.
Serious eye damage / irritation: causes serious burns.
Mutagenic effect on reproductive cells - chloride C12-C16 Alkylbenzyldimethylammonium:
Genotoxic:
AMES test - negative
gene mutation assay in vitro - not mutagenic
In vitro cytogenetic test - does not cause structural chromosome aberration.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity
DETAILS OF PARTICULAR COMPONENTS:
Phosphoric acid (data for high concentrations substance):
-for fish: LC50 Gumbusia affinis: 138 mg/l/96h, LC 50 Lepomis macrochirus 3 - 3,25 mg/l/96h
-for Daphnia: EC50 Daphnia magna: >100 mg/l/48h.
Harmful to aquatic life. The hazardous effect depends on the pH of the aqueous solution.
Do not allow the substance penetrate into the sewage system, surface water, groundwater and soil.
Sulfamic acid (data for high concentrations substance):
Product classified as harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.
-for fish: LC 50: 70,3 mg/l/96h (P. promelas)
-for bacteria: UE 10> 0,01 1000 mg/l/16h (Pseudomonas putida)
Non-ionic surfactants (data for high concentrations substance):
Readily biodegradable.
Degree of elimination: >70% after 28 days, according to OECD 301A
Degree of elimination: >60% after 28 days, according to OECD 301B
Cationic surfactants (data for high concentrations substance):
Eco toxicity - chloride C12-C16 Alkylbenzyldimethylammonium - fish: LC50 0,1-1mg / l / 96h

- for Daphnia: EC50> 0,01-0,1mg / l / 48h
- for algae: IC50> 0.01-0.1 mg / l / 72h (Pseudokirchneriella subcapitata), NOEC> 0.001-0.01 mg / L (Pseudokirchneriella subcapitata)
M factor acute = 10
M factor chronic = 1

12.2 Persistence and degradability:
The surfactants contained within the product comply with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents

DETAILS OF PARTICULAR COMPONENTS:

Phosphoric acid (data for high concentrations substance):
Inorganic substance, therefore biodegradation testing is not applicable.

Sulfamic acid (data for high concentrations substance):
No data available

Non-ionic surfactants (data for high concentrations substance):
No data available

Cationic surfactants (data for high concentrations substance):
The product contains only readily biodegradable substances.
- C12-C16 chloride, alkylbenzyldimethylammonium:
The product is readily biodegradable:> 60% BOD / 28d closed bottle test (OECD 301D)

12.3 Bioaccumulative potential:
No data available

12.4 Mobility in soil
The product is water soluble and may spread in groundwater systems.

12.5 Results of PBT and vPvB assessment
This substance/mixture does not meet the PBT and vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects
No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

RESIDUES AND WASTES
DO NOT mix with other liquid wastes. DO NOT empty into drain. Dispose of this material and its container at hazardous or special waste collection point.

13.1. WASTE TREATMENT METHODS
Contaminated containers should be completely emptied. Several times rise container **(**or equivalent) promptly after emptying. Empty container can be stored in containers for collection of plastic packaging, or can be delivered to specialized company for recycling.

Disposal should be in accordance with the national/international regulations.

SECTION 14. TRANSPORT INFORMATION

Trade name: **GRAN MFS AGD**

14.1. UN Number: Not applicable
14.2. UN proper shipping name: Not applicable
14.3. Transport hazard class(es): Not applicable
14.4. Packing group: Not applicable
14.5. Environmental hazards: Product is dangerous for environment
14.6. Special precautions for user: For more details see Sections 6 and 8
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: no data available

Warning label: Not applicable

SECTION 15. REGULATORY INFORMATION

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

1)COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
2)REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents
3)COMMISSION REGULATION (EC) No 907/2006 of 20 June 2006 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes III and VII thereto
4)REGULATION (EC) No 1336/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 amending Regulation (EC) No 648/2004 in order to adapt it to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
5)COMMISSION REGULATION (EC) No 551/2009 of 25 June 2009 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes V and VI thereto (surfactant derogation)
6)REGULATION (EU) No 259/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 March 2012 amending Regulation (EC) No 648/2004 as regards the use of phosphates and other phosphorus compounds in consumer laundry detergents and consumer automatic dishwasher detergents
7) REGULATION (EC) No 273/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 February 2004 on drug precursors)
8)REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

15.2. Chemical safety assessment

For mixture: A Chemical Safety Assessment has not been carried out.
For substance:
Phosphoric acid: A Chemical Safety Assessment has been carried out.
Sulfamic acid: A Chemical Safety Assessment has been carried out.
Non-ionic surfactants: No data available
Cationic Surfactant: No data available

SECTION 16. OTHER INFORMATION

Information above are based on current knowledge of product on its current form. All data are presented in order to take into account safety requirements priority and not to guarantee special properties of the product. If product usage conditions are not under manufacturer control, responsibility for safe use lies with the person that uses them.
The employer is obliged to inform all employees, who have contact with the product, about the risk and safety measures specified in the data sheet.
Safety data presented above were prepared based on safety characteristics of substances used by the producer to compose the product and based on regulations for handling dangerous substances and their preparation.
Classification of chemical mixture was done with calculation methods, based on the content of hazardous ingredients.

The full list ofphrases and H symbols from Section 2 and 3:
Eye Irrit. 2 - Causes serious eye irritation, category 2
Aquatic Chronic 3 - Hazardous to the aquatic environment - Chronic Hazard, Category 3
Skin Corr. 1B- Corrosive to skin, category 1B
Met.Corr 1- Substance/Mixture is corrosive to metals, category 1
Skin Irrit. 2 - Causes skin irritation, category 2
Eye Dam. 1- Serious eye damage, category 1
Acute Tox. 4- Acute toxicity, category 4
Aquatic Acute 1 - Hazardous to the aquatic environment - Acute Hazard, Category 1
Aquatic Chronic 1 - Hazardous to the aquatic environment - Chronic Hazard, Category 1

H290 – May be corrosive to metals.
H302 – Harmful if swallowed.
H314 – Causes severe skin burns and eye damage.
H315 – Causes skin irritation.
H318 – Causes serious eye damage.
H319 – Causes serious eye irritation.
H400 – Very toxic to aquatic life.

H410 – Very toxic to aquatic life with long lasting effects.
H412 – Harmful to aquatic life with long lasting effects.

More information on the product can be found on the specific technical data sheet which is available on www.tenzi.pl.

Training: Course participants should be trained about how to handle this hazardous substance, about safety and work hygiene. Drivers should also be trained and obtain proper certification in accordance with the ADR requirements.

Expiry date: 36 months from the production date (if product is stored according to the producent recommendations)

Changes compared to the previous version:
-section 6,8- thickness of gloves. Updated cards versions are now available on www.tenzi.pl

This Material Safety Data Sheet contains 8 pages. Changes in the content by unauthorized persons is prohibited.

Skarbimierzyce 02.10.2015