

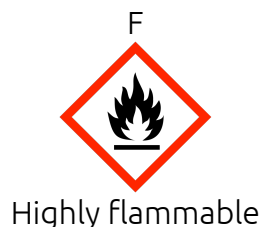
SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. Product identifier:
Refeed®
- 1.2. Relevant identified uses of the mixture and uses advised against:
Use: (e.g. masonry paint): lipid supplement for cell culture media.
For industrial and professional use.
Uses advised against: different from the above mentioned uses.
- 1.3. Details of the supplier of the safety data sheet:
Remembrane srl.
via Selice 84,a
40026 Imola (BO), Italy
Tel.: +39.0542.366010
Fax: +39.0542.643970
- 1.3.1. Responsible person: Paola Poggi
E-mail: paola.poggi@remembrane.com
- 1.4. Emergency telephone number: Centro Antiveleni - Ospedale Niguarda Cà Granda, Milano, 02/66101029

SECTION 2: HAZARD IDENTIFICATION

- 2.1. Classification of the mixture:
Classification according to Directive 1999/45/EC:



R phrases:
R 11 - Highly flammable.

S phrases:
S 7 – Keep container tightly closed
S 16 – Keep away from sources of ignition – No smoking

- 2.2. Label elements
Hazardous substance content: -



R phrases:
R 11 - Highly flammable.

S phrases:
S 7 – Keep container tightly closed
S 16 – Keep away from sources of ignition – No smoking

- 2.3. Other hazards:
No other known specific hazards for human or environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1. Substance:
Not applicable.
- 3.2. Mixture:
The final volume of the product is 1 ml. (Final volume: 1 ml).
Ingredients not precisely identified are proprietary or non-hazardous.

Description	CAS number	EU number	REACH reg. nr.	Conc .	Classification				
					67/548/EEC		CLP		
					Hazard symbol	R phrase	Hazard pict.	Hazard cat.	H phrase
Ethanol	64-17-5	200-578-6	-	100µ l- 1000 µl	F	11	GHS02 Dgr	Flam. Liq. 2	H225

SECTION 4: FIRST AID MEASURES

- 4.1. Description of first aid measures:

IN CASE OF INGESTION:

Measures:

- Flush the mouth of the victim with water and give him plenty of water.
- Do not give the victim anything to eat or drink, and do not induce vomiting if the victim is unconscious.
- Obtain medical help.

IN CASE OF INHALATION:

Measures:

- Take the victim into fresh air, loosen his clothes and let him rest.
- If necessary administer artificial respiration!
- In case of complaints, obtain medical help.

IN CASE OF SKIN CONTACT:

Measures:

- Remove the contaminated clothes.
- Wash the contaminated area with plenty of water and soap.
- In case of complaints, obtain medical help.

IN CASE OF EYE CONTACT:

Measures:

- In case of contact with eyes flush immediately with plenty of flowing water for 15 minutes holding eyelids apart (for at least 15 minutes).
- In case of complaints, obtain medical help.

- 4.2. Most important symptoms and effects, both acute and delayed:

No data available.

- 4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: FIRE-FIGHTING MEASURES

- 5.1. Extinguishing media:

- 5.1.1. Suitable extinguishing media:

Water fog, alcohol resistant foam, dry chemical, carbon dioxide, considering the ambient fire.

- 5.1.2. Unsuitable extinguishing media:

None known.

- 5.2. Special hazards arising from the substance or mixture:

The formation of dangerous decomposition products greatly depends on the circumstances of the combustion. A complex mixture of airborne solid, liquid and gas substances may occur, such as carbon monoxide, carbon dioxide and unidentified organic compounds.

- 5.3. Advise for fire fighters

Wear full protective clothing and self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures:

- 6.1.1 For non-emergency personnel:
Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.
- 6.1.2. For emergency responders:
Avoid the contact with eyes and skin.
Remove the ignition sources. Ensure adequate ventilation.
- 6.2. Environmental precautions:
Dispose of spillage and waste (product/packaging) in accordance with all applicable environmental laws. Do not allow to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.
- 6.3. Methods and material for containment and cleaning up:
Large quantities: Collect the spilled product with non-combustible absorbent (e.g. sand, earth, vermiculite), then place into a suitable, closed, properly labelled chemical waste container for disposal.
During disposal wear suitable personal protective equipment.
- 6.4. Reference to other sections:
For further and detailed information see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

- 7.1. Precautions for safe handling:
Precautions for safe handling:
Observe conventional hygiene precautions.
Avoid the contact of the product with skin and eyes.
Technical measures:
Ensure adequate ventilation.
Precautions against fire and explosion:
Keep away from sources of ignition – No smoking.
- 7.2. Conditions for safe storage, including any incompatibilities:
Technical measures and storage condition:
Keep in original, tightly closed and labelled container.
The place of storage has to be properly ventilated and cleanable.
Store in cool and dry place.
Recommended storage temperature: -20 °C.
Follow all instructions on the label.
Incompatible materials: none known.
Packaging material: no special prescriptions.
- 7.3. Specific end use(s):
No specific instructions available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1. Control parameters:

Exposure limit value:

EH40:

Ethanol (CAS number: 64-17-5):

Long-term exposure limit: 1000 ppm, 1920 mg/m³

Short-term exposure limit: -

DNEL		Route of exposure	Exposure frequency:	Remarks:
Worker	Consumer			
no data available	no data available	Dermal	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Inhalative	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Oral	Short term (acute) Long term (repeated)	no data available

PNEC			Exposure frequency:	Remarks:
Water	Soil	Air		
no data available	no data available	no data available	Short term (single) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single) Long term (continuous)	no data available

no data available	no data available	no data available	Short term (single) Long term (continuous)	no data available
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- 8.2. Exposure controls:
 In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.
- 8.2.1 Appropriate engineering controls
 In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.
 Ensure adequate ventilation.
 Do not eat, drink and smoke during working.
- 8.2.2. Individual protection measures, such as personal protective equipment:
1. Eye/face protection: normally not necessary.
 2. Skin protection:
 - a. Hand protection: Use appropriate protective gloves (EN 374). Selection of the glove material on consideration of the penetration times, rates of diffusion and physical degradation should be made. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.
 - b. Other: Normally not necessary.
 3. Respiratory protection: Normally not necessary.
 4. Thermal hazard: None known.
- 8.2.3. Environmental exposure controls:
 No specific prescription.
 The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. <u>Information on basic physical and chemical properties:</u>	Parameter	Test method	Remarks:
1. Appearance:	transparent or slightly yellow liquid		
2. Odour:	ethanol like		
3. Odour threshold:	no data available		
4. pH value:	6,20	APAT CNR IRSA 2060 Man. 29 2003	
5. Melting point/ freezing point:	no data available		
6. Initial boiling point/boiling range:	no data available		
7. Flash point:	9 °C	DIN ISO 2592	
8. Evaporation rate:	no data available		
9. Flammability:	no data available		
10. Upper/lower flammability or explosive limits:	3,7 vol%/ 17,0 vol%	Internal method Internal method	
11. Vapour pressure:	no data available		
12. Relative density:	no data available		
13. Solubility(ies):	no data available		
14. Partition coefficient: n-octanol/water:	no data available		
15. Auto-ignition temperature:	no data available		
16. Decomposition temperature:	no data available		
17. Viscosity:	1,4 mPa.s	ASTM D 445, dynamic, 20 °C	
18. Explosive properties:	no data available		
19. Oxidizing properties:	no data available		
9.2. <u>Other information:</u>	VOC (60 °C): 38,2 m/m% (Internal method)		

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:
 None known.
- 10.2. Chemical stability:
 At normal temperature and general conditions of work stabile.
- 10.3. Possibility of hazardous reactions:
 None known.
- 10.4. Conditions to avoid:

- Keep away from ignition sources.
- 10.5. Incompatible materials:
None known.
- 10.6. Hazardous decomposition products:
None known.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1. Information on toxicological effects:
Acute toxicity: none known.
Irritation: none known.
Corrosivity: none known.
Sensitisation: none known.
Repeated dose toxicity: none known.
Carcinogenicity: none known.
Mutagenicity: none known.
Reproduction toxicity: none known.
- 11.1.1. For substances subject to registration, brief summaries of the information derived from the test conducted:
No data available.
- 11.1.2. Relevant toxicological properties of the hazardous substances:
No data available.
- 11.1.3. Information on likely routes of exposure:
Ingestion, inhalation, skin contact, eye contact.
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:
No data available.
- 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:
No data available.
- 11.1.6. Interactive effects:
No data available.
- 11.1.7. Absence of specific data:
No information.
- 11.1.8. Other information:
Best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
Based on the information available, the criteria for classification is not fulfilled.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1. Toxicity:
No data available.
Do not enter into water, water courses or soil.
- 12.2. Persistence and degradability
No data available.
- 12.3. Bioaccumulation potential:
No data available.
- 12.4. Mobility in soil
No data available.
- 12.5. Results of PBT and vPvB assessment
No data available.
- 12.6. Other adverse effects:
No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods:
Disposal according to the local regulations.
- 13.1.1. Information regarding the disposal of the product and its container:
Recommended disposal method: Special/chemical waste. Offer surplus and non-recyclable solutions to a licensed disposal company.
No special recommendation from the manufacturer.
During the disposal of the product, its residue and its packaging the national and local prescriptions should be observed. The possible EWC codes indicated are only recommendations, but they may have to be changed due to special circumstances, in such cases new classification may be needed.
- 13.1.2. Information regarding the disposal of the packaging:
Dispose according to the relevant regulations.
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:
None known.
- 13.1.4. Sewage disposal:
None known.
- 13.1.5. Special precautions for any recommended waste treatment
No data available.

SECTION 14: TRANSPORT INFORMATION

- 14.1. UN Number:
1993
- 14.2. UN proper shipping name:
FLAMMABLE LIQUID, N.O.S. (Ethanol)
- 14.3. Transport hazard class(es)
3
F1
- 14.4. Packaging group
II
- 14.5. Environmental hazard
No relevant information available.
- 14.6. Special precautions for user:
No relevant information available.
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
Not applicable.

SECTION 15: REGULATORY INFORMATION

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:
REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
- COMMISSION REGULATION (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
- DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations
- 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
- 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)
- 15.2. Chemical safety assessment: no information available.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet: none.
Full text of the abbreviations in the safety data sheet:
DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: Carcinogenicity, Mutagenicity and reproduction toxicity. PBT: Persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative. n.d.: not defined. n.a.: not applicable.
Data sources: n.d.
Relevant R-Phrases (number and full text) of Section 2 and 3:
R 11 - Highly flammable.
R 22 - Harmful if swallowed.
Relevant H-Phrases (number and full text) of Section 2 and 3:
H225 – Highly flammable liquid and vapour
H302 – Harmful if swallowed.
Training instructions: n.d.
This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations. The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required. Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

