

**1-Ethyl-3-methylimidazolium methansulfonate**

Version number: GHS 1.0

Date of compilation: 26.07.2016

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

**1.1 Product identifier**

**Identification of the substance** 1-Ethyl-3-methylimidazolium methansulfonate  
**Registration number (REACH)** 01-2119911647-35-XXXX  
**EC number** 604-453-0  
**CAS number** 145022-45-3  
**Alternative name(s)** EMIM Methansulfonate, EMIM MeSO<sub>3</sub>  
**Alternative number(s)** 00101.2000, 00101.3000, 00101.4000

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

**Relevant identified uses** Industrial uses  
 For laboratory research purposes  
 Product and process orientated research and development  
**Uses advised against** Do not use for products which come into contact with the food stuffs  
 Do not use for private purposes (household)

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

Proionic GmbH  
 Parkring 18, Trakt H/1  
 A-8074 Grambach  
 Austria  
  
 Telephone: +43 (0) 316 4009-4200  
 Telefax: +43 (0) 316 4009-4228  
 e-mail: office@proionic.com  
 Website: www.proionic.com

**1.4 Emergency telephone number**

Poisoning information center Austria: +43 (0) 1 406 43 43

**Emergency information service**

+43 (0) 316/ 4009- 4200  
 this number is only available during the following of-  
 fice hours  
 mo-fr 8am-4pm (CET)  
 Mag. Roland Kalb +43 (0) 676/ 3145725

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008 (CLP)**

Section	Hazard class	Cat-egory	Hazard class and category	Hazard state-ment
3.4S	skin sensitisation	1B	Skin Sens. 1B	H317
4.1C	hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

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For full text of abbreviations: see SECTION 16.

**The most important adverse physicochemical, human health and environmental effects**

Spillage and fire water can cause pollution of watercourses.

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008 (CLP)**

- signal word warning

- pictograms  
GHS07



- hazard statements

H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects.

- precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P363 Wash contaminated clothing before reuse.  
P501 Dispose of contents/container to industrial combustion plant.

**2.3 Other hazards**

There is no additional information.

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

<b>Name of substance</b>	1-Ethyl-3-methylimidazolium methansulfonate
<b>IUPAC name</b>	3-Ethyl-1-methyl-1H-imidazolium methanesulfonate (1:1)
<b>Identifiers</b>	
<b>CAS No</b>	145022-45-3
<b>Purity</b>	>95 - <99,9 %
<b>Molecular formula</b>	C6 H11 N2. C H3 O3 S
<b>Molar mass</b>	206,3 g/mol

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**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General notes**

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

**Following inhalation**

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

**Following skin contact**

Wash with plenty of soap and water.

**Following eye contact**

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician in any case.

**Following ingestion**

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

**4.2 Most important symptoms and effects, both acute and delayed**

See section 2.2.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

Water, Foam, Alcohol resistant foam, ABC-powder

**Unsuitable extinguishing media**

Water jet

**5.2 Special hazards arising from the substance or mixture**

Under certain conditions in case of fire other hazardous combustion products may be generated.

**Hazardous combustion products**

Nitrogen oxides (NOx), Carbon dioxide (CO2), Sulphur oxides (SOx), May produce toxic fumes of carbon monoxide if burning

**5.3 Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

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**SECTION 6: Accidental release measures**

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

**For non-emergency personnel**

Remove persons to safety.

**For emergency responders**

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

**6.2 Environmental precautions**

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose it.

**6.3 Methods and material for containment and cleaning up**

Pickup and arrange disposal without creating dust. Use of adsorbent materials. Absorbent material (e.g. sand, diatomaceous earth, acid binder, universal binder, sawdust, etc.).

**Other information relating to spills and releases**

For removal of spilled / spilled product always wear personal protective equipment. Place in appropriate containers for disposal. Ventilate affected area.

**6.4 Reference to other sections**

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

##### Recommendations

Use only in well-ventilated areas. Handle and open container with care. Removal of dust deposits.

##### - specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room. Contaminated surfaces must not be cleaned with compressed air .

##### Advice on general occupational hygiene

Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in the original container in a cool, well-ventilated place.

##### Maintaining of the integrity of the substance or mixture

Protect from moisture. Product is hygroscopic.

#### 7.3 Specific end use(s)

The product must be used only for the purposes specified by the manufacturer (see above).

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

These information are not available.

#### 8.2 Exposure controls

##### Appropriate engineering controls

Personal protective equipment (PPE) for normal use.

##### Individual protection measures (personal protective equipment)

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Eye/face protection

Wear eye/face protection.

##### Skin protection

###### - hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.

###### - other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

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### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	solid (crystalline)
Colour	yellow
Odour	faintly perceptible

#### Other safety parameters

pH (value)	not determined
Melting point/freezing point	35 °C
Initial boiling point and boiling range	not determined
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	non-combustible
Explosion limits of dust clouds	not determined
Vapour pressure	0 hPa at 150,4 °C
Density	1,25 g/cm <sup>3</sup> at 20 °C
Vapour density	this information is not available

#### Solubility(ies)

- water solubility	miscible in any proportion
- n-octanol/water (log KOW)	-3,2 (pH value: 6, 23 °C)
Auto-ignition temperature	not determined

#### Viscosity

- dynamic viscosity	109,4 mPa s at 25 °C
Explosive properties	none
Oxidising properties	none

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**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

**10.2 Chemical stability**

Stable when stored under the recommended storage conditions and in the original packaging. .

**10.3 Possibility of hazardous reactions**

No known hazardous reactions.

**10.4 Conditions to avoid**

Protect from moisture. Take precautionary measures against static discharges.

**10.5 Incompatible materials**

Acids, Bases, Oxidisers, Reducing agents

**10.6 Hazardous decomposition products**

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Classification according to GHS (1272/2008/EC, CLP)**

**Acute toxicity**

Shall not be classified as acutely toxic.

Acute toxicity				
Exposure route	Endpoint	Value	Species	Notes
oral	LD50	>2.000 mg/kg	rat	

**Skin corrosion/irritation**

Shall not be classified as corrosive/irritant to skin.

**Serious eye damage/eye irritation**

Shall not be classified as seriously damaging to the eye or eye irritant.

**Respiratory or skin sensitisation**

May cause an allergic skin reaction.

**Germ cell mutagenicity**

Shall not be classified as germ cell mutagenic.

**Carcinogenicity**

No data available.

**Reproductive toxicity**

No data available.

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**Specific target organ toxicity - single exposure**

No data available.

**Specific target organ toxicity - repeated exposure**

No data available.

**Aspiration hazard**

No data available.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Harmful to aquatic life.

**Aquatic toxicity (acute)**

Aquatic toxicity (acute)			
Endpoint	Value	Species	Exposure time
EC50	65,7 mg/l	water flea (Daphnia)	48 h
EC100	220 mg/l	water flea (Daphnia)	48 h
EC0	22 mg/l	water flea (Daphnia)	48 h
ErC50	40,6 mg/l	algae	72 h

**Aquatic toxicity (chronic)**

May cause long-term adverse effects in the aquatic environment.

Aquatic toxicity (chronic)			
Endpoint	Value	Species	Exposure time
EC50	440 mg/l	microorganisms	180 min
EC10	62 mg/l	microorganisms	180 min
EC20	120 mg/l	microorganisms	180 min

**Biodegradation**

The substance is readily biodegradable.

**12.2 Persistence and degradability**

Process of degradability		
Process	Degradation rate	Time
DOC removal	90 - 100 %	28 d



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**12.3 Bioaccumulative potential**

Data are not available.

n-octanol/water (log KOW)	-3,2 (pH value: 6, 23 °C)
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**12.4 Mobility in soil**

Data are not available.

**12.5 Results of PBT and vPvB assessment**

Data are not available.

**12.6 Other adverse effects**

Data are not available.

### SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

Dispose of contents/container to industrial combustion plant.

**Sewage disposal-relevant information**

Do not empty into drains.

**Waste treatment of containers/packagings**

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

**Remarks**

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

**14.1 UN number** not subject to transport regulations  
no dangerous goods

**14.2 UN proper shipping name** not relevant

**14.3 Transport hazard class(es)**

**Class** -

**14.4 Packing group** not relevant

**14.5 Environmental hazards**

**14.6 Special precautions for user**

There is no additional information.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

The cargo is not intended to be carried in bulk.

**Information for each of the UN Model Regulations**

**Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**

Not subject to ADR, RID and ADN.

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### International Maritime Dangerous Goods Code (IMDG)

Not subject to IMDG.

### International Civil Aviation Organization (ICAO-IATA/DGR)

Not subject to ICAO-IATA.

## SECTION 15: Regulatory information

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

Any relevant .

### 15.2 Chemical Safety Assessment

For this substance NO chemical safety assesment has been carried out.

## SECTION 16: Other information

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
IUPAC	International Union of Pure and Applied Chemistry
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
vPvB	very Persistent and very Bioaccumulative

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**Key literature references and sources for data**

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.  
Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

**List of relevant phrases (code and full text as stated in chapter 2 and 3)**

Code	Text
H317	may cause an allergic skin reaction
H412	harmful to aquatic life with long lasting effects

**Disclaimer**

The data contained in this safety data sheet are based on the current knowledge and experience of proionic GmbH and do not purport to be all inclusive. The safety data sheet shall be used only as a guide. The data do not describe the products properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose, except as mentioned, be deduced from the data contained in this safety data sheet. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

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