1-Ethyl-3-methylimidazolium octanoate

Version number: GHS 2.0 Revision: 15.01.2024

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

1.1 Product identifier

Identification of the substance	**1-Ethyl-3-methylimidazolium octanoate**
EC number	620-043-4
CAS number	1154003-55-0
Reference number (ECHA)	02-2120881960-45-0000
Alternative name(s)	EMIM OOc
Alternative number(s)	00144.2000, 00144.3000, 00144.4000

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

Relevant identified uses	Product and process oriented research and development Industrial use
Uses advised against	Do not use for private purposes (household).
HS code	29332990.

1.3 Details of the supplier of the safety data sheet

proionic GmbH
Parkring 18, Trakt H/1
A-8074 Raaba-Grambach
Austria

Telephone: +43 (0) 316 4009-4200
e-mail: office@proionic.com
Website: www.proionic.com

1.4

Emergency information service	Mo-fr 8am-4pm (CET): +43 (0) 316/ 4009- 4200
Official advisory body	Poisoning information center Austria: +43 (0) 1 406 43 43

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification is based on test results.

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

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.4S	skin sensitisation	1B	Skin Sens. 1B	H317

Remarks

For full text of H-phrases: see SECTION 16

2.2 Label elements

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

- signal word danger

- pictograms

GHS05, GHS07

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

- precautionary statements

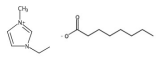
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P315	Get immediate medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
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

Name of substance	1-Ethyl-3-methylimidazolium octanoate
IUPAC name	1H-Imidazolium, 3-ethyl-1-methyl-, octanoate (1:1)
Identifiers	
CAS No	1154003-55-0
EC No	620-043-4
Purity	>98 %
Molecular formula	C14H26N2O2
Molar mass	254,4 $^{g}/_{mol}$
Structural formula	

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. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If skin irritation occurs, consult a doctor.

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. In all cases seek medical advice.

Following ingestion

Rinse mouth with water (only if the person is conscious). Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

See SECTION 2.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, Foam, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For removal of spilled product always wear personal protective equipment.

For non-emergency personnel

Remove persons to safety. Provision of sufficient ventilation.

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 of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Use water for subsequent cleaning.

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

Use only in well-ventilated areas. Contaminated surfaces must not be cleaned with compressed air due to the possible formation of aerosols.

- measures to protect the environment

Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.

Advice on general occupational hygiene

Wash hands after use. Do not 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

Store upright. Keep only in the original container in a cool, well-ventilated place. Containers which are opend must be carefully resealed and kept upright to prevent leakage.

Maintaining of the integrity of the substance or mixture

Keep container tightly closed and dry.

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

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

General ventilation. General industrial hygiene practice. Take precautions, which are usual when handling chemicals.

Individual protection measures (personal protective equipment)

The individual protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the handled substances.

Eye/face protection

Wear eye protection. Use safety goggle with side protection.

Skin protection

- hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use.

- other protection measures

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

Respiratory protection

Respiratory protection not required.

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	slightly yellow to dark yellow
Odour	rancid
Melting point/freezing point	no freezing point according to OECD 102 glass transition temperature: >-70 – <-18 °C at 1,013 bar
Boiling point or initial boiling point and boiling range	no boilingpoint according to OECD103
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	not determined
Flash point	163,5 °C at 103,5 kPa (EU A.9)
Auto-ignition temperature	not determined
Decomposition temperature	209,8 °C at 1,013 bar
pH (value)	9,2 (in aqueous solution: 50 wt%, 20 °C)

Solubility(ies)

Water solubility	977 $^{g}/_{l}$ at 25 °C completely miscible with water

Partition coefficient

Partition coefficient n-octanol/water (log value)	-1,392 (pH value: 5,48, 25 °C) (OECD 107)

Vapour pressure	0,000001 hPa at 20 °C (OECD 104)

Density and/or relative density

Density	0,9966 $^{g}/_{ml}$ at 20 °C(OECD 109)
Relative vapour density	information on this property is not available

Particle characteristics	not relevant (liquid)

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics

Surface tension	31 $^{mN}/_{m}$ (23 °C)
Refractive index	1,486 (20 °C)

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions. Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidisers

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 hazard classes as defined in Regulation (EC) No 1272/2008

Classification procedure

Classification is based on test results.

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

Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful if swallowed.

Acute toxicity

Exposure route	Endpoint	Value	Species	Method
oral	LD50	>2.000 $^{mg}/_{kg}$	rat	OECD 420

Skin corrosion/irritation

Causes skin irritation. Method: OECD 404.

Serious eye damage/eye irritation

Causes serious eye damage. Method: OECD 437.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic. Method: OECD 471.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Specific target organ toxicity - single exposure

No data available.

Specific target organ toxicity - repeated exposure

No data available.

Aspiration hazard

Not applicable.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Aquatic toxicity (acute)			
Endpoint	**Value**	**Species**	**Exposure time**
EC50	190 $^{mg}/_{l}$	daphnia magna	48 h
EC50	40,2 $^{mg}/_{l}$	algae	72 h

12.2 Persistence and degradability

Moderately biodegradable and not inherently biodegradable.

Process of degradability		
Process	**Degradation rate**	**Time**
carbon dioxide generation	30 %	28 d
DOC removal	1 %	28 d

12.3 Bioaccumulative potential

n-octanol/water (log KOW)	-1,392 (pH value: 5,48, 25 °C) (OECD 107)

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

Information on this property is not available.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This article should be disposed of as hazardous waste. Please do not put it in your normal household waste. Dispose of contents/container to hazardous or special waste collection point.

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 or ID number**	Not subject to transport regulations
14.2	**UN proper shipping name**	not relevant
14.3	**Transport hazard class(es)**	none
14.4	**Packing group**	Not assigned
14.5	**Environmental hazards**	Non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments

No data available.

Information for each of the UN Model Regulations

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

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG) - additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

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

There is no additional information.

Additional information

Substance is listed in the following national inventories:
REACH (Europe)
C&L Inventory (Europe)

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

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 relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)

Abbr.	Descriptions of used abbreviations
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HS	Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the World Customs Organisation)
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
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
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

Key literature references and sources for data

European Union

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Classification procedure

Self-assessment based on test results.

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

Code	Text
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

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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