

# Provichem 2202 Sodium ethylenesulphonate

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Version

Date of issue 16/

Revision date

Supersedes

16/05/2011 12/07/2013 22/08/2012

# SECTION1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance
Trade name : Provichem 2202

Chemical name : Sodium ethylenesulphonate IUPAC name : Sodium ethylenesulfonate

EC/EINECS/ELINS : 221-242-5 CAS : 3039-83-6

REACH registration No. : 01-2119510154-55-0000

Formula : C2H4O3S.Na

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

#### 1.2.1. Relevant identified uses

Main use category : Industrial use Industrial/Professional use spec. : wide dispersive use

use resulting in inclusion into or onto a matrix

Use of the substance/mixture : intermediate, functional monomer

Title	Sector of use	Product category	Process category	Article category	Environmental release	SPERC
1- Manufacturing of the substance	SU9		PROC3, PROC2, PROC4, PROC8a, PROC8b, PROC9, PROC13, PROC15		ERC1	
2- Manufacturing of resins	SU9		PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15, PROC10, PROC1, PROC5, PROC7, PROC11		ERC1, ERC2, ERC4, ERC6a, ERC6d	
3- Functional monomers	SU0, SU5, SU19	PC32	PROC2, PROC3, PROC4		ERC1, ERC2, ERC3	
4- Intermediate for manufacturing of chemicals	SU9	PC19, PC30	PROC2, PROC3		ERC1	
5- Formulation / mixing	SU1, SU10, SU19, SU5, SU6a, SU3		PROC3, PROC2, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC9, PROC10, PROC11, PROC11, PROC12, PROC13, PROC14, PROC14,		ERC2, ERC3, ERC4, ERC5, ERC8a, ERC8c, ERC8d, ERC8f	
6- Laboratory reagent	SU9, SU10, SU20	PC19, PC21	PROC9, PROC15		ERC1	_

Full text of use descriptors: see section 16.

#### 1.2.2. Uses advised against

No additional information available



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Details of the supplier of the safety data sheet

Proviron Functional Chemicals N.V. Oudenburgsesteenweg 100 B-8400 Oostende - Belgium T + 32 59 56 21 00 - F + 32 59 56 21 33 functional@proviron.com - www.proviron.com

#### **Emergency telephone number**

Emergency number : + 32 59 56 21 00

#### SECTION 2: Hazards identification

#### Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

#### **Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

No labelling required

#### Other hazards

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

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

#### **Substances**

Substance type : Multi-constituent

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Sodium ethylenesulphonate	(CAS)3039-83-6 (EC/EINECS/ELINS)221-242-5 (REACH-no)01-2119510154-55-0000	25	Not classified
sodium isethionate-bisether	(CAS)63440-92-6	5	Not classified
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]
Sodium ethylenesulphonate	(CAS)3039-83-6 (EC/EINECS/ELINS)221-242-5 (REACH-no)01-2119510154-55-0000	25	Not classified
sodium isethionate-bisether	(CAS)63440-92-6	5	Not classified

Full text of R-, H- and EUH-phrases: see section 16

#### **Mixture** 3.2.

Not applicable

#### SECTION 4: First aid measures

#### **Description of first aid measures**

First-aid measures general : Treat symptomatically.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. In all cases

of doubt, or when symptoms persist, seek medical advice.

holding eyelids apart. Subsequently consult an ophthalmologist.

First-aid measures after skin contact Immediately remove any wetted clothing, shoes or stockings. After contact with skin, wash

immediately with plenty of water. In all cases of doubt, or when symptoms persist, seek medical

First-aid measures after eye contact

: In case of contact with eyes, rinse immediately with plenty of flowing water for > 15 minutes

First-aid measures after ingestion : Rinse mouth immediately and drink large quantities of water. Get medical advice/attention.



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#### Most important symptoms and effects, both acute and delayed

: No data available. Symptoms/injuries after inhalation

Symptoms/injuries after skin contact : Due to its pH-value (see chapter 9), irritation of the skin and eyes cannot be ruled out. Symptoms/injuries after eye contact : Due to its pH-value (see chapter 9), irritation of the skin and eyes cannot be ruled out.

No symptoms known up to now. May cause a light irritation of the linings of the mouth, throat, Symptoms/injuries after ingestion

and gastrointestinal tract.

Chronic symptoms : No symptoms known up to now.

#### Indication of any immediate medical attention and special treatment needed

No additional information available

#### SECTION 5: Firefighting measures

#### **Extinguishing media**

Suitable extinguishing media : Powder. Carbon dioxide (CO2). Atomized water. Alcohol resistant foam.

Unsuitable extinguishing media : High power water jet.

#### Special hazards arising from the substance or mixture

Fire hazard : Aqueous liquid. Does not present any particular risk in the event of a fire.

Explosion hazard Aqueous solution. not explosive.

Reactivity Polymerize slowly under the influence of light, in the absence of stabilizers, under acidic

conditions or after exceeding shelf life.

#### **Advice for firefighters** 5.3.

Firefighting instructions : Extinguishing measurements should be adjusted to the surrounding area.

Protection during firefighting Wear fire/flame resistant/retardant clothing. In case of fire: Wear self-contained breathing

Other information Collect contaminated fire extinguishing water separately. Do not allow entering drains or

surface water.

#### SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment : See protective measures under point 7 and 8.

6.1.2. For emergency responders

Protective equipment : See protective measures under point 7 and 8.

#### **Environmental precautions**

Due to its high COD, this product can only be disposed of in water once the effluent has been purified. Do not empty into drains or the aquatic environment.

#### Methods and material for containment and cleaning up

For containment : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding

agents).

Methods for cleaning up After cleaning, flush away traces with water. Ensure all waste water is collected and treated via

a waste water treatment plant.

#### Reference to other sections

No additional information available

#### SECTION 7: Handling and storage

#### Precautions for safe handling

Precautions for safe handling : Avoid contact with skin, eye and clothing. Do not use for sprinkling or spraying.

# Conditions for safe storage, including any incompatibilities

: Store in a cool dry place. Protect from light. Storage conditions

Maximum storage period : 1 vear

Storage temperature : < 40 (-15 ... 40) °C Prohibitions on mixed storage No data available.

Storage area Keep container in a well-ventilated place.

Special rules on packaging : opaque.

#### Specific end use(s)

No additional information available

#### SECTION 8: Exposure controls/personal protection

#### **Control parameters**

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Provichem 2202(3039-83-6)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	6,66 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	46,66 mg/m³/day	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	3,33 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	11,66 mg/m³/day	
PNEC (Water)		
PNEC aqua (freshwater)	0,056 mg/l	
PNEC aqua (marine water)	0,0056 mg/l	
PNEC aqua (intermittent, freshwater)	0,56 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	0,2193 mg/kg dwt	
PNEC sediment (marine water)	0,02193 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0,011 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	1200 mg/l	

#### **Exposure controls**

Hand protection : Wear protective gloves. (EN 374). Eye protection : Tightly sealed safety glasses. (EN 166).

Skin and body protection : Avoid contact with skin, eye and clothing. For the protection against direct skin contact, body

protective clothing is essential (in addition to the usual working clothes). Wear face protection.

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Take off contaminated clothing and wash before reuse.

Respiratory protection : In case of fine dispersion/spraying/misting: Filter respirator (full mask or mouth-piece) with filter:

A2P2.

#### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Aqueous solution.

Molecular mass : 130,09

Colour : colourless. Light yellow.

Odour : odourless. Odour threshold : Not applicable

pΗ

Melting point : The dry substance polymerises before the melting point is reached.

Freezing point : -20 °C Aqueous solution.

Boiling point : No data available for the aqueous solution.

Flash point No data available for the aqueous solution. The dry substance polymerises before reaching

flash point.

**Explosive limits** : No data available for the aqueous solution. : 0,000391 Pa (pure product, without water) Vapour pressure

Relative vapour density at 20 °C : No data available : 1,2 g/ml @20°C Density

Solubility Material highly soluble in water.

Water: > 1000 g/l @ 20°C / pH = 7

Log Pow

Self ignition temperature No data available for the aqueous solution. The dry substance polymerises before reaching

flash point.

Decomposition temperature : Polymerization.

Explosive properties The study does not need to be conducted because there are no chemical groups associated

with explosive properties present in the molecule.

Oxidising properties The study does not need to be conducted because there are no chemical groups associated

with oxidising properties present in the molecule.

#### Other information

No additional information available



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## SECTION 10: Stability and reactivity

#### Reactivity

Polymerize slowly under the influence of light, in the absence of stabilizers, under acidic conditions or after exceeding shelf life.

#### **Chemical stability**

Stable in use and storage conditions as recommended in item 7.

#### Possibility of hazardous reactions

No additional information available

#### **Conditions to avoid**

Light. radiant heat. heat.

#### 10.5. Incompatible materials

No data available.

# Hazardous decomposition products

Sulphur oxides (SOx). Carbon oxides (COx).

#### SECTION 11: Toxicological information

#### Information on toxicological effects 11.1.

Acute toxicity : Not classified (Conclusive but not sufficient for classification. oral. Lack of data. dermal.

Inconclusive data. inhalation.)

Sodium ethylenesulphonate (3039-83-6)	
LD50 oral rat	> 15000 mg/kg
LD50 dermal rat	> 2000 mg/kg
Skin corrosion/irritation	: Not classified (Inconclusive data)
	pH: ≤ 10
Serious eye damage/irritation	: Not classified (Conclusive but not sufficient for classification)
	pH: ≤ 10
Respiratory or skin sensitisation	: Not classified (Lack of data. Respiration. Inconclusive data. Skin)
Germ cell mutagenicity	: Not classified (Inconclusive data)
Carcinogenicity	: Not classified (Lack of data)
Reproductive toxicity	: Not classified (Lack of data)
Specific target organ toxicity (single exposure)	: Not classified (Conclusive but not sufficient for classification)
Specific target organ toxicity (repeated	: Not classified (Conclusive but not sufficient for classification)
exposure)	
Aspiration hazard	: Not classified (Lack of data)

# SECTION 12: Ecological information

#### **Toxicity**

Sodium ethylenesulphonate (3039-83-6)		
LC50 fishes 1	> 100 mg/l (96h/Danio rerio - Short term toxicity)	
EC50 Daphnia 1	> 100 mg/l (48h/Daphnia magna - Short term toxicity)	
EC50 other aquatic organisms 1	10,51 mg/l (72h/Algae - Long term toxicity)	
EC50 other aquatic organisms 2	> 120 g/l (3h/Micro-organisms - Industrial Sewage)	

#### 12.2. Persistence and degradability

Sodium ethylenesulphonate (3039-83-6)		
Persistence and degradability	Readily biodegradable.	
Hydrolysis as a function of pH	> 90 % Recovery after 5 days @ pH 4 & 50°C > 90 % Recovery after 5 days @ pH 7 & 50°C > 90 % Recovery after 5 days @ pH 9 & 50°C	

#### 12.3. **Bioaccumulative potential**

Sodium ethylenesulphonate (3039-83-6)		
Log Pow	-1,01 @ 20°C	
Bioaccumulative potential	No indication of bio-accumulation potential.	

#### Mobility in soil

No additional information available

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#### 12.5. Results of PBT and vPvB assessment

#### Sodium ethylenesulphonate (3039-83-6)

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

#### Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

#### **Waste treatment methods**

Regional legislation (waste) : Remove according to the regulations.

## SECTION 14: Transport information

No dangerous good in sense of transport regulations

## SECTION 15: Regulatory information

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

#### 15.1.1. **EU-Regulations**

Contains no REACH candidate substance

#### **National regulations**

Water hazard class (WGK) : 1 - slightly hazardous to water

#### **Chemical safety assessment**

For this substance a chemical safety assessment has been carried out.



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# SECTION 16: Other information

Full text of R-, H- and EUH-phrases::

text of R-, H- and EUH-phrase	es::
ERC1	Manufacture of substances
ERC2	Formulation of preparations
ERC3	Formulation in materials
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
ERC6a	Industrial use resulting in manufacture of another substance (use of intermediates)
ERC6d	Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
ERC8d	Wide dispersive outdoor use of processing aids in open systems
ERC8f	Wide dispersive outdoor use resulting in inclusion into or onto a matrix
PC19	Intermediate
PC21	Laboratory chemicals
PC30	Photochemicals
PC32	Polymer preparations and compounds
PROC1	Use in closed process, no likelihood of exposure
PROC10	Roller application or brushing
PROC11	Non industrial spraying
PROC12	Use of blowing agents in manufacture of foam
PROC13	Treatment of articles by dipping and pouring
PROC14	Production of preparations or articles by tabletting, compression, extrusion, pelletisation
PROC15	Use as laboratory reagent
PROC2	Use in closed, continuous process with occasional controlled exposure
PROC3	Use in closed batch process (synthesis or formulation)
PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)
PROC6	Calendering operations
PROC7	Industrial spraying
PROC8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
SU0	Other
SU1	Agriculture, forestry, fishery
SU10	Formulation [mixing] of preparations and/or re-packaging (excluding alloys)



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SU19	Building and construction work
SU20	Health services
SU3	Industrial uses: Uses of substances as such or in preparations* at industrial sites
SU5	Manufacture of textiles, leather, fur
SU6a	Manufacture of wood and wood products
SU9	Manufacture of fine chemicals

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