

1: Identification of substance / mixture

1. Product Identifier		Substance
Product Name	(R)-TETRAHYDROFURAN-3-YL 4-METHYLBENZENESULFONATE	
Product Code	533678	
CAS Number	219823-47-9	
Other Names		
IUPAC		
MFCD Number	MFCD27947543	
EC/EINECS		
REACH Number		Index-No

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

3. Details of the supplier of the safety data sheet



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4. Emergency telephone number

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2. Hazards Identification

1. Classification of the substance or mixture

H302	Acute Tox. 4	
H312	Acute Tox. 4	
H332	Acute Tox. 4	

2. Label elements

Signal Word **Warning**



Hazard Statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.

Precautionary Phrases

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P501	Dispose of contents/container to local regulations

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

Product Name	Hazards	Concentration
(R)-TETRAHYDROFURAN-3-YL 4-METHYLBENZENESULFONATE		
CAS Number: 219823-47-9	H302, H312, H332 Acute Tox. 4	<=100%

4. First Aid Measures

1. Description of first aid measures

<i>Skin Contact</i>	P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
<i>Eye Contact</i>	Rinse opened eye for several minutes under running water.
<i>Ingestion</i>	P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
<i>Inhalation</i>	P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

2. Most important symptoms and effects

There may be irritation and redness.

3. Indication of any immediate medical attention

No additional measures required

5. Firefighting measures

1. Extinguishing Media

<i>Suitable</i>	Carbon dioxide. Dry chemical powder.
<i>Unsuitable</i>	no data

2. Special Hazards arising from the substance or mixture

In combustion toxic fumes may form.

3. Advice for Fire Fighters

Wear self-contained breathing apparatus.
Wear protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

1. Personal Precautions

Do not attempt to take action without suitable protective clothing – see section 8 of SDS.
Remove all incompatible materials as outlined in section 10 of SDS.

2. Environmental Precautions

Do not discharge into drains or rivers.
Contain the spillage using bunding.

3. Methods & Materials

Mix with sand or vermiculite.
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

No Special Measures Required

7. Handling and Storage

1. Personal Precautions

<i>Safe Handling</i>	Ensure there is sufficient ventilation of the area. P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product.
<i>Protection against explosions and fires</i>	P363: Wash contaminated clothing before reuse.

2. Conditions for safe storage, including any incompatibilities

Managing Storage Risks	Store in cool, well ventilated area. Keep container tightly closed.
Storage Controls	No special requirements
Maintaining Integrity	Keep in tightly closed container in cool area away from direct sunlight or heat sources.
Other advice	no further information available

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

General protective and hygiene measures	P280: Wear protective gloves/protective clothing/eye protection/face protection. Wash hands during breaks and at the end of handling the material Immediately remove any contaminated clothing
Engineering measures	P271: Use only outdoors or in a well-ventilated area.
Eye / Face Protection	Safety Glasses with side-shields.
Hand protection	Protective gloves.
Respiratory protection	P261: Avoid breathing dust/fume/gas/mist/vapours/spray. Use breathing protection with high concentrations
Skin protection	Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands. Protective clothing.
Other personal protection advice	no data

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	solid
Odour	No Data Available
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	No Data Available
Initial boiling point and boiling range	No Data Available
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	No Data Available
Vapour density	No Data Available
Relative density	No Data Available
Solubility(ies):	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available

Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

2. Other Information

No additional information available

10. Stability and Reactivity

1. Reactivity

no unusual reactivity

2. Stability

Stable under normal conditions.

3. Possibility of Hazardous Reactions

no hazardous reactions known

4. Conditions to Avoid

no specific conditions to avoid

5. Incompatible Materials

Oxidising agents.

6. Hazardous Decomposition Products

In combustion emits toxic fumes.

11. Toxicology information

1. Information

Acute Toxicity	no data
Skin corrosion/irritation	irritant for skin and mucous membranes
Serious eye Damage/irritation	irritant effect
Respiratory or skin sensitisation	may cause respiratory irritation may cause skin sensitization
Germ Cell mutagenicity	not known
Carcinogenicity	not known
Reproductive toxicity	not known
STOT-single exposure	not known
STOT-repeated exposure	not known
Aspiration hazard	not known

2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH

12. Ecological Information

1. Toxicity

not known

2. Persistence and degradability

not known

3. Bio-Accumulative Potential

not known

4. Mobility and Soil

not known

5. Results of PBT & vPvB assessment

not known

6. Other adverse effects

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations

Disposal of Packaging Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

Not classified as hazardous for transport

Road (ADR)

Not classified as hazardous for transport

Sea (IMDG)

Not classified as hazardous for transport

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)

RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association

ICAO:International Civil Aviation Organization

ICAO-TI: Technical Instructions by the ICAO

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS:Chemical Abstracts Service

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.