

Safety Data Sheet

#90031766 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
2,4,6-Trinitrobenzenesulfonic acid, 5% aqueous solution	2508-19-2	C6H3N3O9S	10	02 Sep 2026

SECTION 1

Identification

1.1 Product identifier

Product name	2,4,6-Trinitrobenzenesulfonic acid, 5% aqueous solution
CAS number	2508-19-2
EC / EINECS number	219-717-7
UFI code	2NU9-KF4K-8C86-YR3Q
Chemical formula	C6H3N3O9S
Molecular weight	293.17
SMILES	<chem>C1=C(C=C(C(=C1[N+](=O)[O-])S(=O)(=O)O)[N+](=O)[O-])[N+](=O)[O-]</chem>

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

For research use, laboratory use, manufacture of chemicals only. Not for human or animal use

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Acute Tox. 4; H302
Skin Corr. 1B; H314
Skin Sens. 1; H317

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
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H302	Harmful if swallowed
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H314 (sub cat. 1B)	Causes severe skin burns and eye damage
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H317	May cause an allergic skin reaction
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CODE	PRECAUTIONARY STATEMENT
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P260	Do not breathe dust/fume/gas/mist/vapours/spray
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P280	Wear protective gloves/protective clothing/eye protection/face protection
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P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
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P302+P352	IF ON SKIN: Wash with soap and water
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P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
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P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing
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2.3 Other hazards

Does not contain components considered to have endocrine-disrupting properties. Does not meet PBT or vPvB criteria under REACH Annex XIII.

Risk of explosion (95% water acts as a desensitiser)

SECTION 3

Composition / information on ingredients

3.1 Substances

Name	2,4,6-Trinitrobenzenesulfonic acid, 5% aqueous solution
CAS number	2508-19-2
EC number	219-717-7
Concentration / purity	c. 5% 2,4,6-Trinitrobenzenesulfonic acid (CAS: 2508-19-2): H201, H301, H314b, H317
Classification according to Regulation (EC) No 1272/2008	Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317
Hazard statements	H302, H314 (sub cat. 1B), H317
Acute toxicity estimate (ATE)	No data available
Impurities / stabilising additives	None

SECTION 4

First-aid measures

4.1 Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
Skin contact	Wash with plenty of water. Continue to rinse for at least 15 minutes and seek medical attention.
Eye contact	Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention.
Ingestion	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Unsuitable extinguishing media	None known

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.
Not combustible.
Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/fume/gas/mist/vapours/spray. Provide adequate ventilation. For personal protection, see section 8.

6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up

Absorb spillage with a suitable absorbent material.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product. Remove contaminated clothing and laundry thoroughly before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature 2 to 8 °C

Conditions for safe storage (incompatibilities) Storage class: 8. Store in a dry place. Store in a closed container.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL) *Not applicable*

DNEC/PNEC data *Not applicable*

8.2 Exposure controls

Eye / face protection Safety glasses
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection Gloves: Nitrile Rubber, 0.11mm (480 mins).

Respiratory protection Full-face respirator
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection *No data available*

Environmental exposure controls *No data available*

SECTION 9

Physical & chemical properties**9.1 Information on basic physical and chemical properties**

Appearance / physical state	Liquid DERIVED FROM: LITERATURE
Colour	Not applicable
Odour	Odourless DERIVED FROM: LITERATURE
Melting / freezing point	Not applicable
Boiling point	Not applicable
Flammability	No data available
Lower and upper explosion limit	No data available
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
pH	Not applicable
Acidity	Acid DERIVED FROM: LITERATURE
Kinematic viscosity	No data available
Solubility	Not applicable
Partition coefficient n-octanol/water (log value)	Not applicable
Vapour pressure	Not applicable
Density (g/mL)	1 g/mL DERIVED FROM: LITERATURE
Relative vapour density	No data available
Particle characteristics	No data available

9.2 Other information

No data available

SECTION 10

Stability & reactivity**10.1 Reactivity**

No data available

10.2 Chemical stability

Stable under the prescribed storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, sparks, flames.

10.5 Incompatible materials

Reducing agents

10.6 Hazardous decomposition products

See section 5

SECTION 11

Toxicological information

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

Acute toxicity (LD50 / LC50)	Information on hazard classes as defined in Regulation (EC) No 1272/2008
Skin corrosion / irritation	Causes severe burns
Eye corrosion / irritation	Causes serious eye damage
Respiratory / skin sensitisation	May cause an allergic skin reaction
Carcinogenicity	Not classified
Mutagenicity	Not classified
Reproductive toxicity	Not classified
STOT (single / repeated exposure)	Not classified
Aspiration hazard	Not classified

11.2 Information on other hazards

Not classified

SECTION 12

Ecological information

12.1 Toxicity

Not applicable

12.2 Persistence and degradability

Not applicable

12.3 Bioaccumulative potential

Not applicable

12.4 Mobility in soil

Not applicable

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local/national regulations

SECTION 14

Transport information

14.1 UN number or ID number

UN3265

14.2 UN proper shipping name

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

14.3 Transport hazard class(es)

8



14.4 Packing group

II

14.5 Environmental hazards

Not a marine pollutant

14.6 Special precautions for user

Special precautions for user Handle in accordance with good industrial hygiene and safety practice

Transport category 2

Tunnel code (E)

Packing instruction (ADR) P001

Packing instruction (IMDG) P001

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences) *No data available*

REACH code Y110

ECHA notification *Not applicable*

15.2 Chemical safety assessment

Not applicable

SECTION 16

Other information

Revision notes / other information

Previous SDS ver. 1 published 20th May 2022
Hazard classification and labelling according to Regulation (EC)1272/2008
All eye/face protection should comply with EN ISO 16321-1:2022
Respiratory equipment: Reusable air-purifying respirator (APR)
Filter Type: ABEK
Standard: EN 14387
National Regulations:
-Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances
Other regulations, limitations and legal regulations:
-Directive 94/33/EC- The protection of young people at work

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.