

1: Identification of substance / mixture

1. Product Identifier		Substance
Product Name	1-(tert-butoxy)propan-2-ol	
Product Code	515376	
CAS Number	57018-52-7	
Other Names	1-(1,1-Dimethylethoxy)-2-propanol	
IUPAC		
MFCD Number	MFCD00077674	
EC/EINECS	406-180-0	
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

fluorochem

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4. Emergency telephone number

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2. Hazards Identification

1. Classification of the substance or mixture

H226	Flam. Liq. 3	
H302	Acute Tox. 4	
H315	Skin Irrit. 2	
H318	Eye Dam. 1	
H335	STOT SE 3	

2. Label elements

Signal Word **Danger**



Hazard Statements

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P241	Use explosion-proof electrical/ventilating/lighting/. equipment.
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.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

Product Name	Hazards	Concentration
1-(tert-butoxy)propan-2-ol	CAS Number: 57018-52-7 H226, H302, H315, H318, H335 Acute Tox. 4, Eye EC/EINECS: 406-180-0 Dam. 1, Flam. Liq. 3, Skin Irrit. 2, STOT SE 3	<=100%

4. First Aid Measures

1. Description of first aid measures

<i>Skin Contact</i>	P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P332 + P313: If skin irritation occurs: Get medical advice/attention.
<i>Eye Contact</i>	P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<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>	P370 + P378: In case of fire: Use CO ₂ for extinction. Carbon dioxide. sand Dry chemical powder.
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<i>Unsuitable</i>	Do not use water.
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2. Special Hazards arising from the substance or mixture

In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
In combustion emits toxic fumes of hydrogen bromide.

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

Refer to section 8 of SDS for personal protection details.

2. Environmental Precautions

Do not discharge into drains or rivers.

3. Methods & Materials

Absorb into dry earth or sand.
Avoid all incompatible materials in clean-up procedure. See section 10 of SDS.
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

Safe Handling Ensure there is sufficient ventilation of the area.
Use non-sparking tools.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.

Protection against explosions and fires P241: Use explosion-proof electrical/ventilating/lighting// equipment.
P243: Take precautionary measures against static discharge.
P362: Take off contaminated clothing and wash before reuse.

2. Conditions for safe storage, including any incompatibilities

Managing Storage Risks Store in cool, well ventilated area.
Keep container tightly closed.
Avoid contact with water or humidity.
Prevent the build up of electrostatic charge in the immediate area.
Ensure lighting and electrical equipment are not a source of ignition.
Refrigerate.

Storage Controls No special requirements

Maintaining Integrity P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Store away from oxidising agents

Other advice P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

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.

Hand protection Protective gloves.

Respiratory protection P260: Do not breathe dust/fume/gas/mist/vapours/spray.
Use breathing protection with high concentrations

Skin protection Handle with gloves.
Gloves must be inspected prior to use.
Wash and dry hands.
Protective clothing.

Other personal protection advice no data

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	Liquid
Odour	No Data Available
Odour threshold	No Data Available
pH	No Data Available
Melting point / Freezing point	-82°C

Initial boiling point and boiling range	154°C
Flash point	49°C
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	374 Pa @ 25°C
Vapour density	No Data Available
Relative density	0.87
Solubility(ies):	Water (187 650mg/l @ 20°C)
Partition coefficient: n-octanol/water	0.73
Auto-ignition temperature	390°C
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

Substance may be capable of forming highly reactive peroxides upon extended contact with oxygen

4. Conditions to Avoid

Extremes of temperature and direct sunlight

Heat, flames and sparks.

5. Incompatible Materials

Bases.

Oxidising agents.

6. Hazardous Decomposition Products

In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

In combustion emits toxic fumes of hydrogen bromide.

11. Toxicology information

1. Information

Acute Toxicity Oral LD50 (rat) 3771mg/kg
Inhalation LC50 >2680mg/l
Dermal LD50 (rat) >2000mg/kg

Skin corrosion/irritation irritant for skin and mucous membranes

Serious eye damage/irritation Causes serious eye damage.

Respiratory or skin sensitisation may cause respiratory irritation

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

Toxicity to aquatic algae and cyanobacteria:
Raphidocelis subcapitata EC50 - >1000mg/l/72 h

2. Persistence and degradability

not known

3. Bio-Accumulative Potential

not known

4. Mobility and Soil

Log Pow: 0.73

5. Results of PBT & vPvB assessment

not known

6. Other adverse effects

not known

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations Hand over to authorised disposal company as hazardous waste.

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

14. Transport Information

Air (ICAO)

1. **UN Number:** 1987

2. **Shipping Name:** Alcohols, n.o.s.

3. **Transport hazard class(es):** : 3 Sub Class :



4. **Packing group:** III

5. **Environmental hazards:**

6. **Special Precautions for user:**

7. **Transport in bulk:**

Road (ADR)

1. **UN Number:** 1987

2. **Shipping Name:** ALCOHOLS, N.O.S (1-(tert-butoxy)propan-2-ol).

3. **Transport hazard class(es):** : 3 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

Sea (IMDG)

1. **UN Number:** 1987
2. **Shipping Name:** Alcohols, n.o.s.
3. **Transport hazard class(es):** : 3 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:** IBCINS: IBC03

TANKPROV: TP1, TP29

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.