



## **ProSolve™ Sink Unblocker Spray (200ml)**

### **Safety Data Sheet**

According to Regulation (EU) No 830/2015 and Regulation (EC) No 1272/2008

Date Revised: 08/06/2021 / Version: 2

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

##### **1.1. Product identifier**

**Trade Name: ProSolve™ Sink Unblocker Spray**

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

**Identified Uses:** Unblockingsinks

##### **1.3. Details of the supplier of the safety data sheet**

**Company Name: ProSolve**

**Company Address: Sandall Stones Road, Kirk Sandall Industrial Estate, Doncaster, South Yorkshire,  
DN3 1QR**

**Tel: +44 (0) 1302 310 113**

**E-mail: [enquiries@prosolveproducts.com](mailto:enquiries@prosolveproducts.com)**

**Web: [www.prosolveproducts.com](http://www.prosolveproducts.com)**

##### **EU Details:**

**Address: Portfolio House, Kilbarrack Parage, Dublin D05 TF86**

**Phone: 003531 9120925**

##### **1.4. Emergency Telephone Number**

**National Health Service (NHS)**

**NHS England or Scotland: 111**

**NHS Wales: 0300 0604400**

**Northern Ireland: Call your local GP**

**For life-threatening emergencies, call 999 for an ambulance.**

## SECTION 2: Hazards Identification

### SECTION 2: Hazards Identification

#### 2.1. Classification of the substance or mixture

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

Flam. Liq. 3,H226

Skin Corr. 1,H314

Eye Dam. 1,H318

Skin Sens. 1,H317

Aquatic Acute 1,H400

Aquatic Chronic 1,H410

#### 2.2. Label elements Hazard pictograms:

Hazard pictograms:



Signal word: Danger

#### Hazard statements:

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

#### Precautionary statements:

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P310 Immediately call a POISON CENTER/doctor/...

P391 Collect spillage.

P303+P361+P353 IF ON SKIN (or hair): 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.

### 2.3. Other hazards Results of PBT and vPvB assessment:

No data available

## SECTION 3: Composition / Information On Ingredients

### Description

A mixture of chemical and gases.

### 3.1. Substances N/A

### 3.2. Mixtures Description: Hazardous Ingredients

| Chemical Name         | Common name | CAS Number | EC Number | Concentration |
|-----------------------|-------------|------------|-----------|---------------|
| Norflurane            | R134A       | 811-97-2   | 212-377-0 | 80%           |
| (R)-pmentha-1,8-diene | D-limonene  | 5989-27-5  | 227-813-5 | 20%           |

## SECTION 4: First Aid Measures

### 4.1. Description of first aid measures

#### General information:

Medical attention is required. Consult a doctor. Show this safety data sheet (SDS) to the doctor in attendance.

#### Inhalation:

Fresh air, rest. Refer for medical attention.

#### Skin Problem:

ON FROSTBITE: rinse with plenty of water, do NOT remove clothes.

#### Eye:

Rinse with pure water for at least 15 minutes. Consult a doctor.

### **Ingestion:**

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

### **4.2. Most important symptoms and effects, both acute and delayed:**

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Centre immediately.

### **4.3. Indication of any immediate medical attention and special treatment needed:**

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR if necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Chlorinated fluorocarbons (CFCs) and related compounds.

## **SECTION 5: Firefighting Measures**

### **5.1. Extinguishing media**

**Suitable:** Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2. Special hazards arising from the substance or mixture:** Excerpt from ERG Guide 126 [Gases - Compressed or Liquefied (Including Refrigerant Gases)]: Some may burn but none ignite readily. Containers may explode when heated. Ruptured cylinders may rocket. (ERG, 2016)

**5.3. Advice for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary.

## **SECTION 6: Accidental Release Measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **Personal precautions:**

Avoid dust formation.

Avoid breathing mist, gas or vapours.

Avoid contacting with skin and eye.

Use personal protective equipment.  
Wear chemical impermeable gloves.  
Ensure adequate ventilation.  
Remove all sources of ignition.  
Evacuate personnel to safe areas.  
Keep people away from and upwind of spill/leak.

## **6.2. Environmental protection measures**

NEVER direct water jet on liquid.  
Do NOT let this chemical enter the environment.  
Personal protection: chemical protection suit including self-contained breathing apparatus.

## **6.3. Methods and material for containment and cleaning up**

ACCIDENTAL RELEASE MEASURES: Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas; Environmental precautions: Do not let product enter drains; Methods and materials for containment and cleaning up: Ventilate the area.

## **6.4. Reference to other sections:**

For disposal suggestions see section 13. For exposure controls / personal protection suggestions see section 8.

## **SECTION 7: Handling and Storage**

### **7.1. Precautions for safe handling**

#### **Advice on Safety Handling:**

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### **7.2. Conditions for safe storage, including any incompatibilities**

Fireproof. Keep in a well-ventilated room. Keep container tightly closed in a dry and well-ventilated place. Contents under pressure.

### **7.3. Specific end use(s)**

Recommendation(s) for intended use

See section 1.2

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Control parameters

Ingredients with occupational exposure limits to be monitored

| Component      | R134A                        |       |                          |           |
|----------------|------------------------------|-------|--------------------------|-----------|
| CAS No.        | 811-97-2                     |       |                          |           |
|                | Limit value - Eight hours    |       | Limit value - Short term |           |
|                | ppm                          | mg/m3 | ppm                      | mg/m3     |
| Australia      | 1000                         | 4240  |                          |           |
| Austria        | 1000                         | 4200  | 4000                     | 16800     |
| Germany (AGS)  | 1000                         | 4200  | 8000 (1)                 | 33600 (1) |
| Germany (DFG)  | 1000                         | 4200  | 8000                     | 33600     |
| New Zealand    | 1000                         |       |                          |           |
| Sweden         | 500                          | 2000  | 750 (1)                  | 3000 (1)  |
| Switzerland    | 1000                         | 4200  |                          |           |
| United Kingdom | 1000                         | 4240  |                          |           |
|                | Remarks                      |       |                          |           |
| Germany (AGS)  | (1) 15 minutes average value |       |                          |           |
| Germany (DFG)  | STV 15 minutes average value |       |                          |           |
| Sweden         | (1) 15 minutes average value |       |                          |           |

| Component     | D-limonene                   |       |                          |         |
|---------------|------------------------------|-------|--------------------------|---------|
| CAS No.       | 5989-27-5                    |       |                          |         |
|               | Limit value - Eight hours    |       | Limit value - Short term |         |
|               | ppm                          | mg/m3 | ppm                      | mg/m3   |
| Finland       | 25                           | 140   | 50 (1)                   | 280 (1) |
| Germany (AGS) | 5                            | 28    | 20 (1)                   | 110 (1) |
| Germany (DFG) | 5                            | 28    | 20 (1)                   | 112 (1) |
| Switzerland   | 7                            | 40    | 14 (1)                   | 80 (1)  |
|               | Remarks                      |       |                          |         |
| Finland       | (1) 15 minutes average value |       |                          |         |
| Germany (AGS) | (1) 15 minutes average value |       |                          |         |
| Germany (DFG) | (1) 15 minutes average value |       |                          |         |
| Switzerland   | (1) 15 minutes average value |       |                          |         |

### 8.2. Exposure controls

#### Respiratory protection

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

#### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU)

### Skin protection

Wear fire/ flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

### Thermal hazards

no data available

### Environmental exposure controls

See section 6.2.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

**Appearance:** Liquid

**Odour:** pure CAS 811-97-2: Faint ethereal odor; pure CAS 5989-27-5: Citrus odor

**Melting point / Freezing point:** pure CAS 811-97-2: -101°C; pure CAS 5989-27-5: -73.97°C.  
Remarks: ±  
-273.1°C; measured using adiabatic calorimetry.; -73.65°C.  
Remarks: ± -  
272.65°C; measured using differential scanning calorimetry.

|                                                |                                                                                                       |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Initial boiling point and boiling range</b> | pure CAS 811-97-2: ?26.5°C(lit.); pure CAS 5989-27-5: >= 175.5 - <= 176.5 °C. Atm. press.: 763 mm Hg. |
| <b>Flash point</b>                             | pure CAS 5989-27-5: 51 °C. Atm. press.: Ca. 1 atm.                                                    |
| <b>Evaporation rate</b>                        | no data available                                                                                     |

|                                                     |                                                                                                                              |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Flammability</b>                                 | pure CAS 811-97-2: Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.;pure CAS 5989-27-5: Flammable. |
| <b>Upper/lower flammability or explosive limits</b> |                                                                                                                              |
| <b>Vapour pressure</b>                              | pure CAS 811-97-2: 4990 mm Hg at 25 deg C;pure CAS 5989-27-5: 200 Pa. Temperature:24.85°C. Remarks:Experimental value.       |
| <b>Vapour density</b>                               | pure CAS 811-97-2: (air = 1): 3.5;pure CAS 5989-27-5: 4.7 (vs air)                                                           |
| <b>Relative density</b>                             | pure CAS 811-97-2: 1.21;pure CAS 5989-27-5: 0.844. Temperature:20°C.                                                         |
| <b>Solubility(ies)</b>                              | pure CAS 811-97-2: In water, 2.04X10+3 mg/L at 25 deg C (est);pure CAS 5989-27-5: less than 1 mg/mL at 67.1° F (NTP, 1992)   |
| <b>Partition coefficient noctanol water</b>         | pure CAS 811-97-2: log Kow = 1.68;pure CAS 5989-27-5: log Pow = 4.38. Temperature:37 °C. Remarks:Standard error: 0.05.       |
| <b>Auto-ignition temperature</b>                    | pure CAS 5989-27-5: 245 °C. Atm. press.:99 544 Pa.                                                                           |
| <b>Decomposition temperature Viscosity</b>          | pure CAS 811-97-2: 0.204 cP at 25 deg C;pure CAS 5989-27-5: dynamic viscosity (in mPa s) = 0.846. Temperature:25°C.          |
| <b>Explosive properties</b>                         | pure CAS 5989-27-5: Above 48°C explosive vapour/air mixtures may be formed.                                                  |
| <b>Oxidising properties</b>                         | no data available                                                                                                            |

**9.2. Other information:** No further relevant information available

## SECTION 10: Stability and Reactivity

**10.1. Reactivity:** Decomposes on contact with hot surfaces or flames. This produces toxic and corrosive fumes.

**10.2. Chemical stability:** Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions:** 1,1,1,2-TETRAFLUOROETHANE is chemically inert in many situations, but can react violently with strong reducing agents such as the very active metals and the active metals. Can react with strong oxidizing agents or weaker oxidizing agents under extremes of temperature.

**10.4. Conditions to avoid:** No data available

**10.5. Incompatible materials:** Incompatible materials: Strong oxidizing agents, Alkali metals

**10.6. Hazardous decomposition products:** When heated to decomposition it emits toxic vapors of fluoride.



## **SECTION 11: Toxicological Information**

### **11.1 Information on toxicological effects**

#### **Acute toxicity**

**Oral:** pure CAS 5989-27-5: LD50 Mouse oral 5.6-6.6 g/kg

**Inhalation:** pure CAS 811-97-2: LC50 Rat inhalation 2,215,000 mg/cu m/4 hr

**Dermal:**

#### **Skin corrosion/irritation**

no data available

#### **Serious eye damage/irritation**

no data available

#### **Respiratory or skin sensitization**

no data available

#### **Germ cell mutagenicity**

no data available

#### **Carcinogenicity**

no data available

#### **Reproductive toxicity**

no data available

#### **STOT-single exposure**

no data available

#### **STOT-repeated exposure**

no data available

#### **Aspiration hazard**

no data available

## **SECTION 12: Ecological Information**

### **12.1. Toxicity**

- Toxicity to fish: pure CAS 5989-27-5: LC50 - Pimephales promelas - 720 µg/L - 96 h.
- Toxicity to daphnia and other aquatic invertebrates: pure CAS 5989-27-5: EC50 - Daphnia magna - 0.307 mg/L - 48 h.

- Toxicity to algae: pure CAS 5989-27-5: EC50 - Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) - 0.32 mg/L - 72 h.
- Toxicity to microorganisms: pure CAS 5989-27-5: EC50 - activated sludge of a predominantly domestic sewage - 209 mg/L - 3 h. Remarks:Respiration rate.

### **12.2. Persistence and degradability:**

AEROBIC: 1,1,1,2-Tetrafluoroethane, present at 1.44 mg/L, reached 4% of its Theoretical oxygen demand in 28 days using an activated sludge inoculum in the OECD 301D test(1).

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

An estimated BCF of 6 was calculated in fish for 1,1,1,2-tetrafluoroethane(SRC), using an estimated log Kow of 1.68(1) and a regression-derived equation(1). According to a classification scheme(2), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

### **12.4. Mobility in soil:**

The log Koc for 1,1,1,2-tetrafluoroethane was reported as 0.91 tested in soil with pH, organic content, silt, sand and gravel at 6.9, 3.2%, 5.7%, 88.1% and 5.3%, respectively(1). According to a classification scheme(2), this log Koc value suggests that 1,1,1,2-tetrafluoroethane is expected to have very high mobility in soil.

**12.5. Results of PBT and vPvB assessment:** No information available.

**12.6. Other adverse effects:** No information available.

## **SECTION 13: Disposal Considerations**

### **13.1. Waste treatment methods**

#### **Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### **Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning.

Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

## SECTION 14: Transport Information

|                                    | ADR/RID                  | IMDG     | IATA-DGR  |
|------------------------------------|--------------------------|----------|-----------|
| 14.1. UN number:                   | 1950                     | 1950     |           |
| 14.2. UN proper shipping name:     | AEROSOLS                 | AEROSOLS | AEROSOLS, |
| 14.3. Transport hazard class(es):  | 2                        | 2        | 2.        |
| 14.4. Packing group:               | -                        | -        | -         |
| 14.5. Environmental hazards:       | Yes                      | Yes      | Yes       |
| 14.6. Special precautions for user | No information available |          |           |

### 14.7. Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code:

Not applicable

## SECTION 15: Additional Regulatory Information

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

| Chemical Name                                                          | Common names and synonyms | CAS number | EC number  |
|------------------------------------------------------------------------|---------------------------|------------|------------|
| Norflurane                                                             | R134A                     | 811-97-2   | 212-377-0  |
| European Inventory of Existing Commercial Chemical Substances (EINECS) |                           |            | Not Listed |
| Chemical Name                                                          | Common names and synonyms | CAS number | EC number  |
| (R)-p-mentha-1,8-diene                                                 | D-limonene                | 5989-27-5  | 227-813-5  |
| European Inventory of Existing Commercial Chemical Substances (EINECS) |                           |            | Not Listed |

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other Information

### Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

### **Key literature references and sources for data**

IPCS - The International Chemical Safety Cards (ICSC), website:

<http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website:

<https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:

[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:

<http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website:

<http://www.dguv.de/ifa/gestis/gestisstoffdatenbank/>

[index-2.jsp](#)

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

### **Further information**

Each user is responsible for the implementation of the national special regulations.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Please observe the following disclaimer! --- Our safety data sheets have been compiled according to effective EU- directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product. Please note that due to the on-going change in regulation from CHIP to CLP, any MSDS information in this MSDS is only considered accurate at the time of its creation. During this time classifications of substances may change. Therefore it is possible that can art work and MSDS information may differ. As such if you have any concerns we recommend you request a new MSDS from us every 6-12 months.