



1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name: PERFLUORODECALIN
Synonyms: Octadecafluorodecalin
Product number: C10LIN
CAS-No.: 306-94-5

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

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Exfluor Research Corporation
2350 Double Creek Drive
ROUND ROCK, TEXAS 78664
USA

Telephone: +1 512-310-9044

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 GHS Label Elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

none

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms: Octadecafluorodecahydronaphthalene (cis+trans)
Perfluorodecahydronaphthalene (cis+trans)
Formula: C₁₀F₁₈
Molecular Weight: 462.08 g/mol
CAS-No.: 306-94-5
EINECS-No.: 206-192-4

No ingredients are hazardous according to OSHA criteria.

No components need to be disclosed according to the applicable regulations.

4. FIRST AID MEASURES

4.1 Description of first-aid measures

If inhaled

Remove victim to fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

See § 2.2 and § 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE FIGHTING MEASURES**5.1 Extinguishing media**

Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Releases toxic fumes of carbon oxides and hydrogen fluoride.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment, and emergency measures**

Avoid breathing vapors, mist, or gas.
For personal protection, see § 8.

6.2 Environmental precautions

Do not allow material to enter drains.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed container for disposal according to local regulations.

6.4 Reference to other sections

Refer to protective measures listed in § 7 and § 8.

7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

For precautions, see § 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific use(s)

Apart from the uses mentioned in § 1.2 no other specific uses are stipulated.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Control parameters****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Light eye protection recommended.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures, use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

General hygiene considerations

Do not breathe vapors. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance	clear, colorless liquid
b)	Odor	no data available
c)	Odor threshold	no data available
d)	pH	no data available
e)	Melting/freezing point	-10 °C (14 °F) – lit.
f)	Initial boiling point/range	142 °C (288 °F) – lit.
g)	Flash point	> 100 °C (> 212 °F) – closed cup
h)	Evaporation rate	no data available
i)	Flammability (solid, gas)	no data available
j)	Upper/lower flammability or explosive limits	no data available
k)	Vapor pressure	6 torr at 20 °C
l)	Vapor density	15.95 – (Air -1.0)
m)	Relative density	1.908 Kg/cm ³ at 25 °C (77 °F)
n)	Solubility	no data available
o)	Partition coefficient: n-octanol/water	no data available
p)	Auto-ignition temperature	no data available
q)	Decomposition temperature	no data available
r)	Viscosity	no data available
s)	Explosive properties	no data available
t)	Oxidizing properties	no data available

9.2 Other safety information

none

10. STABILITY AND REACTIVITY

10.1 Reactivity

No unusual reactivity. See § 10.5.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reaction

No data available

10.4 Conditions to avoid

Extreme heat (> 400 °C)

10.5 Incompatible materials

Strong oxidizing agents. Reacts with lithium, sodium, potassium, calcium, and barium.

10.6 Hazardous decomposition products

Hazardous polymerization does not occur.

Releases toxic fumes of carbon oxides and hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available

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

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure

No data available

Specific target organ toxicity -- repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional information

RTECS: Not available

To the best of our knowledge, the acute and chronic toxicity of this substance is not fully known.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product. Disposal must be made according to official regulations.

14. TRANSPORTATION INFORMATION

DOT (US) / IMDG / IATA

Not classified as hazardous for transport

15. REGULATORY INFORMATION

US federal information

Included on TSCA Inventory.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Exflur Research Corporation shall not be held liable for any damage resulting from handling or from contact with the above product.