

## 1: Identification of substance / mixture

### 1. Product Identifier

Substance

Product Name **Chloroform D >99.8%+ 0.03% TMS**  
Product Code D-307  
CAS Number 865-49-6  
Other Names  
IUPAC  
MFCD Number MFCD00000827  
EC/EINECS  
REACH Number Index-No

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

Research and Development

### 3. Details of the supplier of the safety data sheet

Fluorochem Ltd  
Unit 14, Graphite Way  
Hadfield  
Derbyshire  
SK13 1QH  
UK

Telephone: +44(0)1457 860111  
Fax: +44(0)1457 892799  
Email: sds@fluorochem.co.uk



### 4. Emergency telephone number

+44(0)7855 268577 -

## 2. Hazards Identification

### 1. Classification of the substance or mixture

H302	Acute Tox. 4	
H315	Skin Irrit. 2	
H319	Eye Irrit. 2	
H331	Acute Tox. 3	
H351	Carc. 2	
H361	Repr. 2	
H372	STOT RE 1	
H373	STOT RE 2	

### 2. Label elements

Signal Word **Danger**



### Hazard Statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H351	Suspected of causing cancer ..
H361	Suspected of damaging fertility or the unborn child retardation in development of foetus.
H372	Causes damage to organs liver kidneys inhalation.
H373	May cause damage to organs ..

### Precautionary Phrases

P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P308 + P313	IF exposed or concerned: Get medical advice/attention.

### 3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

## 3. Composition / Information on Ingredients

### 1. Substances

Product Name	Hazards	Concentration
Chloroform D >99.8%+ 0.03% TMS		
CAS Number: 865-49-6	H302, H315, H319, H331, H351, H361, H372, H373 Acute Tox. 3, Acute Tox. 4, Carc. 2, Eye Irrit. 2, Repr. 2, Skin Irrit. 2, STOT RE 1, STOT RE 2	<=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. P332 + P313: If skin irritation occurs: Get medical advice/attention. Transfer to hospital if there are burns or symptoms of poisoning. Wash immediately with plenty of soap and water.
<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. P337 + P313: If eye irritation persists: Get medical advice/attention. Rinse opened eye for several minutes under running water. Transfer to hospital for specialist examination.
<i>Ingestion</i>	P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Transfer to hospital as soon as possible. Wash out mouth with water.
<i>Inhalation</i>	P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Supply fresh air; consult a doctor in case of complaints. Transfer to hospital as soon as possible.

### 2. Most important symptoms and effects

P308 + P313: IF exposed or concerned: Get medical advice/attention.  
There may be pain and redness.  
May cause permanent damage.  
There may be difficulty swallowing.

### 3. Indication of any immediate medical attention

No additional measures required

## 5. Firefighting measures

### 1. Extinguishing Media

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

### 2. Special Hazards arising from the substance or mixture

Toxic  
In combustion emits toxic fumes of carbon dioxide / carbon monoxide.  
In combustion emits toxic fumes of hydrogen chloride / phosgene.

### 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

Evacuate the area immediately.  
Do not attempt to take action without suitable protective clothing – see section 8 of SDS.

### 2. Environmental Precautions

Do not discharge into drains or rivers.  
Contain the spillage using bunding.  
Alert the neighbourhood to the presence of fumes or gas.

### 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

*Safe Handling* 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.

*Protection against explosions and fires* P202: Do not handle until all safety precautions have been read and understood.  
P362: Take off contaminated clothing and wash before reuse.  
normal measures for preventive fire protection

### 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* Store away from oxidising agents  
Keep in tightly closed container in cool area away from direct sunlight or heat sources.  
Store in refrigerator +4 C

*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

<i>General protective and hygiene measures</i>	P280: Wear protective gloves/protective clothing/eye protection/face protection. P281: Use personal protective equipment as required. Wash hands during breaks and at the end of handling the material Immediately remove any contaminated clothing
<i>Engineering measures</i>	Ensure there is sufficient ventilation of the area.
<i>Eye / Face Protection</i>	Safety Glasses with side-shields.
<i>Hand protection</i>	Protective gloves.
<i>Respiratory protection</i>	P260: Do not breathe dust/fume/gas/mist/vapours/spray. Self-contained breathing apparatus must be available in case of emergency.
<i>Skin protection</i>	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands. Protective clothing.
<i>Other personal protection advice</i>	Chloroform ppm ACCGIH TLV 10 Belgium TWA 10 France TWA 5, 50-STEEL Germany TWA 10 Netherlands TWA 10 Switzerland TWA 10, 20-STEEL United Kingdom TWA 2 Russia TWA 50 Denmark TWA 2 Finland TWA 10,20-STEEL Hungary TWA 10mg/m3 Poland TWA 50mg/m3 Sweden TWA 2, 5-STEEL USA 50-STEEL

## 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	-64°C
Initial boiling point and boiling range	60.9°C
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	1.50
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.  
Bases  
Alkali metals.

### 6. Hazardous Decomposition Products

In combustion emits toxic fumes.  
In combustion emits toxic fumes of carbon dioxide / carbon monoxide.  
In combustion emits toxic fumes of hydrogen chloride / phosgene.  
In combustion emits toxic fumes of chlorine.

## 11. Toxicology information

### 1. Information

<i>Acute Toxicity</i>	Oral LD50 (Rat) 908mg/kg Oral LD50 (Mouse) 36mg/kg Oral LD50 (Guinea Pig) 820mg/kg Dermal LD50 (Rabbit) >20000mg/kg Inhalation LC50/4H (Rat) 47702mg/m <sup>3</sup> /4H
<i>Skin corrosion/irritation</i>	irritant for skin and mucous membranes
<i>Serious eye Damage/irritation</i>	irritant effect
<i>Respiratory or skin sensitisation</i>	No sensitizing effect known
<i>Germ Cell mutagenicity</i>	not known
<i>Carcinogenicity</i>	not known
<i>Reproductive toxicity</i>	not known
<i>STOT-single exposure</i>	not known
<i>STOT-repeated exposure</i>	not known
<i>Aspiration hazard</i>	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)

1. **UN Number:** 1888
2. **Shipping Name:** Chloroform
3. **Transport hazard class(es):** : 6.1 Sub Class :



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

### Road (ADR)

1. **UN Number:** 1888
2. **Shipping Name:** CHLOROFORM
3. **Transport hazard class(es):** : 6 Sub Class :



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

### Sea (IMDG)

1. **UN Number:** 1888
2. **Shipping Name:** Chloroform
3. **Transport hazard class(es):** : 6.1 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**

**7. Transport in bulk:** IBCINS: IBC03

TANKPROV: TP2

## 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

### 2. Associated risk phrases according to European directive 67/548/EEC

### 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.