

## 1: Identification of substance / mixture

### 1. Product Identifier

### Substance

Product Name **Chloroform D + 1% TMS**  
Product Code D-213  
CAS Number 865-49-6  
Other Names Trichloromethane  
IUPAC  
MFCD Number MFCD00000827  
EC/EINECS 200-663-8  
REACH Number

### 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

H300	Acute Tox. 2	R28, R26/28, R26/27/28, R27/28
H315	Skin Irrit. 2	R38, R36/38, R36/37/38, R37/38
H351	Carc. 2	R40
H373	STOT RE 2	R33, R48/20, R48/21, R48/22, R48/20/21, R48/20/22, R48/21/22, R48/20/21/22

No Resource File

### 2. Label elements

Signal Word **Danger**



### Hazard Statements

H300	Fatal if swallowed.
H315	Causes skin irritation.
H351	Suspected of causing cancer ..
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.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P501	Dispose of contents/container to local regulations

### 3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

## 3. Composition / Information on Ingredients

## 1. Substances

Chloroform D + 1% TMS

Assay:100% CAS Number :865-49-6

## 2. Mixtures

Not Relevant

## 4. First Aid Measures

### 1. Description of first aid measures

*Skin Contact* P302 + P352: IF ON SKIN: Wash with plenty of soap and water.  
P332 + P313: If skin irritation occurs: Get medical advice/attention.

*Eye Contact* Rinse opened eye for several minutes under running water.

*Ingestion* P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

*Inhalation* Remove casualty from exposure ensuring one's own safety whilst doing so.  
If unconscious, check for breathing and apply artificial respiration if necessary.  
If breathing becomes bubbly, have the casualty sit and provide oxygen if available.

### 2. Most important symptoms and effects

P308 + P313: IF exposed or concerned: Get medical advice/attention.

### 3. Indication of any immediate medical attention

P314: Get medical advice/attention if you feel unwell.

## 5. Firefighting measures

### 1. Extinguishing Media

*Suitable* Carbon dioxide.  
Alcohol or polymer foam.  
Dry chemical powder.  
Water spray.

*Unsuitable* 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

Refer to section 8 of SDS for personal protection details.

### 2. Environmental Precautions

Do not discharge into drains or rivers.  
Contain the spillage using bunding.

### 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

<i>Safe Handling</i>	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.
<i>Protection against explosions and fires</i>	P202: Do not handle until all safety precautions have been read and understood. P362: Take off contaminated clothing and wash before reuse.

### 2. Conditions for safe storage, including any incompatibilities

<i>Managing Storage Risks</i>	Store in cool, well ventilated area. Keep container tightly closed.
<i>Storage Controls</i>	No special requirements
<i>Maintaining Integrity</i>	Store away from oxidising agents
<i>Other advice</i>	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.
<i>Engineering measures</i>	Use only in a chemicals fume hood.
<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. Use breathing protection with high concentrations
<i>Skin protection</i>	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-STEL Germany TWA 10 Netherlands TWA 10 Switzerland TWA 10, 20-STEL United Kingdom TWA 2 Russia TWA 50 Denmark TWA 2 Finland TWA 10,20-STEL Hungary TWA 10mg/m3 Poland TWA 50mg/m3 Sweden TWA 2, 5-STEL USA 50-STEL

## 9. Physical and Chemical Properties

### 1. Physical and Chemical Properties

Appearance	Colourless liquid
Odour	No Data Available

Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	-64°
Initial boiling point and boiling range	62°
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 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 Inhalative 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.

EPA-B2 Probable human carcinogen, sufficient evidence from animal studies; inadequate evidence or no data from epidemiological studies.

IARC-2B: Possibly carcinogenic to humans; limited evidence in humans in the absence of sufficient evidence in experimental animals.

NTP-2: Reasonably anticipated to be a carcinogen; limited evidence from studies in humans or sufficient evidence from studies in experimental animals.

ACGIH A3: Animal carcinogen; Agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s) of histological type(s), or by mechanism(s) not considered relevant to worker exposure. Available epidemiological studies do not confirm an increased risk of cancer in exposed humans.

Available evidence suggest that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

The registry of toxic effects of chemical substances (RTECS) contains tumorigenic and / or carcinogenic and/or neoplastic data for this product.

## 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.

Danger to drinking water if even extremely small quantities leak into soil.

## 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)

- UN Number:** 1888
- Shipping Name:** Chloroform
- 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):** : 6.1      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

UNTANKINS: T7  
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

R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
R26/28	Very toxic by inhalation and if swallowed.
R27/28	Very toxic in contact with skin and if swallowed.
R28	Very toxic if swallowed.
R33	Danger of cumulative effects.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36/38	Irritating to eyes and skin.
R37/38	Irritating to respiratory system and skin.
R38	Irritating to skin.
R40	Limited evidence of a carcinogenic effect.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R48/20/21	Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
R48/20/21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R48/21	Harmful: danger of serious damage to health by prolonged exposure in contact with skin.
R48/21/22	Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.



### 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.