SAFETY DATA SHEET
(in accordance with Regulation (EU) 2015/830)

117750-Sodium trichloroacetate

Version: 3
Revision date: 26/11/2016

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.
Product Name: Sodium trichloroacetate
Product Code: 117750
Chemical Name: Sodium trichloroacetate
Index No: 607-005-00-2
CAS No: 650-51-1
EC No: 211-479-2
Registration No: 01-2119485170-43-XXXX

1.2 Relevant identified uses of the substance and uses advised against.
For manufacturing, processing, laboratory or repacking use only

Uses advised against:
Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.
Company: DC FINE CHEMICALS Ltd.
Address: Hill Top, 88
City: NW11 6DY London (United Kingdom)
Telephone: +44 (20) 7586 6800
Fax: +44 (20) 7504 1701
E-mail: info@dcfinechemicals.com
Web: www.dcfinechemicals.com

1.4 Emergency telephone number: (Only available during office hours)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance.
In accordance with Regulation (EU) No 1272/2008:
Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects.
STOT SE 3: May cause respiratory irritation.

2.2 Label elements.
Labelling in accordance with Regulation (EU) No 1272/2008:
Pictograms:

Signal Word: Warning
H statements:
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.
P statements:
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P312 Call a POISON CENTER/doctor if you feel unwell.
P391 Collect spillage.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

-Continued on next page.-
P501 Dispose of contents / container according the regulation.

Contains:
Sodium trichloroacetate

2.3 Other hazards.
In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment. PBT Substance (Persistent, Bioaccumulative and Toxic) and vPvB (very Persistent and very Bioaccumulative).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.
Chemical Name: [2] [3] Sodium trichloroacetate
Index No: 607-005-00-2
CAS No: 650-51-1
CE No: 211-479-2
Registration No: 01-2119485170-43-XXXX
[2] PBT Substance (Persistent, Bioaccumulative and Toxic.).
[3] vPvB Substance (very Persistent and very Bioaccumulative).

3.2 Mixtures.
Not Applicable.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

**Inhalation.**
Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

**Eye contact.**
If wearing contact lenses, remove them. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

**Skin contact.**
Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. **NEVER** use solvents or thinners.

**Ingestion.**
If accidentally ingested, seek immediate medical attention. Keep calm. **NEVER** induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed.
Irritant Product, repeated or prolonged contact with skin or mucous membranes can cause redness, blisters or dermatitis, inhalation of spray mist or particles in suspension may cause irritation of the respiratory tract, some symptoms may not be immediate. Can cause allergic reactions.

4.3 Indication of any immediate medical attention and special treatment needed.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

SECTION 5: FIREFIGHTING MEASURES.

The product does not present any particular risk in case of fire.

5.1 Extinguishing media.
**Recommended extinguishing methods.**
Extinguisher powder or CO₂. In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

-Continued on next page.-
5.2 Special hazards arising from the substance.

**Special risks.**
Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

**Fire protection equipment.**
According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

**SECTION 6: ACCIDENTAL RELEASE MEASURES.**

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product dangerous for the environment, in case of large spills or if the product contaminates lakes, rivers, or sewers, inform the responsible authorities according to local legislation. Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.

The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.

**SECTION 7: HANDLING AND STORAGE.**

7.1 Precautions for safe handling.

For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers.
In the application area, smoking, eating, and drinking must be prohibited.
Follow legislation on occupational health and safety.
Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

Classification and threshold amount of storage in accordance with Annex I to Directive 2012/18/EU (SEVESO III):

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Lower-tier requirements</th>
<th>Upper-tier requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>ENVIRONMENTAL HAZARDS - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

7.3 Specific end use(s).

Not available.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.**

8.1 Control parameters.

-Continued on next page.-
The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

**Measures of a technical nature:**
Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

<table>
<thead>
<tr>
<th>Concentration:</th>
<th>100 %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Uses:</strong></td>
<td>For manufacturing, processing, laboratory or repacking use only</td>
</tr>
</tbody>
</table>

**Breathing protection:**
If the recommended technical measures are observed, no individual protection equipment is necessary.

**Hand protection:**
If the product is handled correctly, no individual protection equipment is necessary.

**Eye protection:**
If the product is handled correctly, no individual protection equipment is necessary.

**Skin protection:**
| PPE: | Work footwear. |
| Characteristics: | «CE» marking, category II. |
| CEN standards: | EN ISO 13287, EN 20347 |
| Maintenance: | This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people. |
| Observations: | Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident |

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

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

- **Appearance:** Solid
- **Colour:** N.A./N.A.
- **Odour:** N.A./N.A.
- **Odour threshold:** N.A./N.A.
- **pH:** 4-8 (7.5%, 20ºC)
- **Melting point:** >300 ºC
- **Boiling Point:** N.A./N.A.
- **Flash point:** N.A./N.A.
- **Evaporation rate:** N.A./N.A.
- **Inflammability (solid, gas):** N.A./N.A.
- **Lower Explosive Limit:** N.A./N.A.
- **Upper Explosive Limit:** N.A./N.A.
- **Vapour pressure:** N.A./N.A.
- **Vapour density:** N.A./N.A.
- **Relative density:** 1.92 g/cm³
- **Solubility:** 1000 g/l (20ºC)
- **Liposolubility:** N.A./N.A.
- **Hydrosolubility:** N.A./N.A.
- **Partition coefficient (n-octanol/water):** N.A./N.A.
- **Auto-ignition temperature:** N.A./N.A.
- **Decomposition temperature:** N.A./N.A.
- **Viscosity:** N.A./N.A.
- **Explosive properties:** N.A./N.A.
- **Oxidizing properties:** N.A./N.A.

**N.A./N.A. = Not Available/Not Applicable due to the nature of the product**

**9.2 Other information.**

- **Pour point:** N.A./N.A.
- **Blink:** N.A./N.A.
- **Kinematic viscosity:** N.A./N.A.

**N.A./N.A. = Not Available/Not Applicable due to the nature of the product**

### SECTION 10: STABILITY AND REACTIVITY.

**10.1 Reactivity.**

-Continued on next page.-
The product does not present hazards by their reactivity.

10.2 Chemical stability. 
Unstable in contact with: 
- Bases.

10.3 Possibility of hazardous reactions. 
Neutralization can occur on contact with bases.

10.4 Conditions to avoid. 
- Avoid contact with bases.

10.5 Incompatible materials. 
Avoid the following materials:  
- Bases.

10.6 Hazardous decomposition products. 
Depending on conditions of use, can be generated the following products: 
- Corrosive vapors or gases.

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**SECTION 11: TOXICOLOGICAL INFORMATION.**

IRRITANT PREPARATION. The inhalation of spray mist or suspended particulates can irritate the respiratory tract. It can also cause serious respiratory difficulties, central nervous system disorders, and in extreme cases, unconsciousness.

**11.1 Information on toxicological effects.**
Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin. Splatters in the eyes can cause irritation and reversible damage.

**Toxicological information.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Acute toxicity</th>
<th>Type</th>
<th>Test</th>
<th>Kind</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium trichloroacetate</td>
<td></td>
<td>Oral</td>
<td>DL50</td>
<td>Rat</td>
<td>3.32 g/kg</td>
</tr>
<tr>
<td>CAS No: 650-51-1 EC No: 211-479-2</td>
<td></td>
<td>Dermal</td>
<td>DL50</td>
<td>rat</td>
<td>&gt;2 g/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inhalation</td>
<td>LC50</td>
<td>rat</td>
<td>20 mg/l (4 h)</td>
</tr>
</tbody>
</table>

a) acute toxicity; 
Not conclusive data for classification.

b) skin corrosion/irritation; 
Not conclusive data for classification.

c) serious eye damage/irritation; 
Not conclusive data for classification.

d) respiratory or skin sensitisation; 
Not conclusive data for classification.

e) germ cell mutagenicity; 
Not conclusive data for classification.

f) carcinogenicity; 
Not conclusive data for classification.

g) reproductive toxicity; 
Not conclusive data for classification.

h) STOT-single exposure; 
Product classified: 
Specific target organ toxicity following a single exposure, Category 3:

i) STOT-repeated exposure;
Not conclusive data for classification.

j) aspiration hazard;
Not conclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.
No information is available regarding the ecotoxicity.

12.2 Persistence and degradability.
PBT Substance (Persistent, Bioaccumulative and Toxic) and vPvB (very Persistent and very Bioaccumulative).

12.3 Bioaccumulative potential.
No information is available regarding the bioaccumulation.

12.4 Mobility in soil.
No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.
PBT Substance (Persistent, Bioaccumulative and Toxic) and vPvB (very Persistent and very Bioaccumulative), according to assessment made in the Chemical Safety Report, substance meets criteria to be considered PBT and vPvB.

12.6 Other adverse effects.
No information is available about other adverse effects for the environment.

SECTION 13 DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.
Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

SECTION 14: TRANSPORT INFORMATION.

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA for air transport.
**Land:** Transport by road: ADR, Transport by rail: RID.
Transport documentation: Consignment note and written instructions

**Sea:** Transport by ship: IMDG.
Transport documentation: Bill of lading

**Air:** Transport by plane: ICAO/IATA.
Transport document: Airway bill.

-Continued on next page.-
14.1 UN number.
UN No: UN3077

14.2 UN proper shipping name.
Description:
ADR: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS SODIUM TRICHLOROACETATE), 9, PG III, (E)
IMDG: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS SODIUM TRICHLOROACETATE), 9, PG III, MARINE POLLUTANT
ICAO: UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS SODIUM TRICHLOROACETATE), 9, PG III

14.3 Transport hazard class(es).
Class(es): 9

14.4 Packing group.
Packing group: III

14.5 Environmental hazards.
Marine pollutant: Yes

14.6 Special precautions for user.
Labels: 9

Hazard number: 90
ADR LQ: 5 kg
IMDG LQ: 5 kg
ICAO LQ: 30 kg B

Provisions concerning carriage in bulk ADR:
VC1 Carriage in bulk in sheeted vehicles, sheeted containers or sheeted bulk containers is permitted.
VC2 Carriage in bulk in closed vehicles, closed containers or closed bulk containers is permitted.
Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-A,S-F
Proceed in accordance with point 6.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.
The product is not transported in bulk.

SECTION 15: REGULATORY INFORMATION.

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

Product classification according to Annex I of Directive 2012/18/EU (SEVESO III): E1
The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.
The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.
15.2 Chemical safety assessment.
There has been no evaluation a chemical safety assessment of the product.

SECTION 16: OTHER INFORMATION.

Classification codes:
- Aquatic Acute 1: Acute toxicity to the aquatic environment, Category 1
- Aquatic Chronic 1: Chronic effect to the aquatic environment, Category 1
- STOT SE 3: Specific target organ toxicity following a single exposure, Category 3

Sections changed compared with the previous version:
1,2,3,4,7,9,10,11,14,16

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
- CEN: European Committee for Standardization.
- PPE: Personal protection equipment.
- IATA: International Air Transport Association.
- ICAO: International Civil Aviation Organization.
- RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

Key literature references and sources for data:
http://eur-lex.europa.eu/homepage.html
http://echa.europa.eu/


The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.