

<p>Sodium dichloroisocyanurate Anhydrous (NaDCC)</p> <p><u>Chemical Name:</u> 1,3,5 - Triazine -2,4,6 (1H,3H,5H) Trione 1,3, - Dichloro, Sodium Salt</p> <p><u>Synonyms:</u> Sodium Dichloro -1,3,5 - Triazinetrione Anhydrous. Sodium Dichloro - S - Triazine -2,4,6 1H,3H,5H)-Trione. Troclosene Sodium.</p> <p><u>Chemical Family:</u> Chlorinated S Triazine Trione</p> <p><u>Formula:</u> $3Cl_2N_3O_3Na$</p>	220-767-7	2893-78-9	30 – 60% w/w	FULL
---	-----------	-----------	--------------	------

3.1 Chemical Name: Continued

<u>Chemical Name, Synonym, Family, Formula</u>	<u>EC/EINECS No</u>	<u>CAS No</u>	<u>Content %</u>	<u>REACH Registration Status</u>
<p>Adipic Acid</p> <p>1,6- Hexanedioic Acid - Range</p> <p><u>Chemical Family:</u> Saturated Dicarboxylic Acid</p> <p><u>Synonyms:</u> 1,4 - Butanedicarboxylic Acid Adipinic Acid</p> <p><u>Formula:</u> $COOH (CH_2)_4COOH$</p>	204-673-3	124-04-9	10 - 25% w/w	N/A

3.3 There are no other hazardous materials in this formulation that are known to the supplier.

4. First Aid Measures (Solution):

- Eye Contact: Immediately flush with plenty of clean water for at least 15 minutes. If irritation persists, seek medical attention. Remove contact lenses & flush with water if applicable.
- Skin Contact: Promptly wash thoroughly with water for at least 5 minutes while removing contaminated clothing. Wash any contaminated clothing well before re-use.

Ingestion:	Never give anything by mouth to an unconscious person. If conscious, immediately rinse mouth, then drink plenty of water or milk. Do not induce vomiting but if vomiting does occur, keep airways clear. Seek medical attention.
Inhalation:	Move to fresh air. If irritation persists, seek medical attention.

Health Effects of Tablet (NOT resultant solution)

Effect On Skin:	Irritation and burning
Effect On Eyes:	Irritation and burning
Effect On Ingestion:	Harmful if swallowed. Nausea, headache, vomiting & upper abdominal pain.
Effect On Inhalation:	Unlikely route of exposure unless tablet breaks into powder, then material may be irritant to mucous membranes
HSE Occupational Exposure Limits (EH40/93):	Long Term Exposure Limit to Chlorine - (8 hours TWA) 0.5ppm 1.5mgm ⁻³ Short Term Exposure Limit to Chlorine - (10 minutes) 1ppm 3mgm ⁻³

5. Fire Fighting Measures

5.1 Special Fire or Explosion Hazards

Negligible fire hazard. Product is not flammable itself, but contact with combustible material may cause fire. Product combustible if dehydrated by drying. Decomposes above 250°C with release of chlorine & other toxic fumes but no visible flame.

A thermal decomposition can be extinguished by flooding with copious amounts of water or by isolating the decomposing material in open air and allowing it to be consumed. Use self-contained breathing apparatus and goggles. Do not approach from leeward.

5.2 Suitable Extinguishing Media

Pressurised water only. Do not use dry fire extinguishers containing ammonium compounds, carbon dioxide or halogenated extinguishers as potential for violent reaction. Wear breathing apparatus

5.3 Other Recommendations

Remove the product if it is safe to do so, before using water for fire fighting, in order to minimise hazards from release of toxic fumes. It will often be safer to let the fire burn itself out. Where it is decided to fight the fire with water, large quantities **must** be used. If insufficient water is used there may be an explosion hazard associated with hot damp material.

6. Accidental Release Measures

Refer to section 8 for personal protection when handling spillages.

Any spillages should be cleaned up as soon as possible to prevent contamination with foreign materials with which it may react - see section 10, stability and reactivity.

Handle spillage carefully, do not return spilled material to original container. **If tablets are dry and uncontaminated**, collect up into heavy duty plastic bag; where possible and suitable, use material as originally intended. Wash away any residues with copious amounts of water.

If tablets are contaminated they should be transferred to waste ground, spread thinly and covered with a thin layer of earth; a smell of chlorine will be noted until the material has degraded. Keep people, vehicles and animals away from the disposal area.

If tablets become damp they will effervesce, evolving carbon dioxide and may decompose to give off chlorine fumes; transfer spillage to unsealed plastic bags avoiding any large masses of material within the bags and remove to waste ground for immediate treatment/disposal as above; avoid breathing fumes. Wash away residues with copious amounts of water.

If spillage of tablets is large (more than 100Kg), place into bins lined with polythene bags and eliminate in accordance with locally valid disposal regulations

7. Handling & Storage

7.1 Recommended Storage Conditions

STORE IN A COOL, DRY, WELL VENTILATED PLACE WITH CONTAINER LID TIGHTLY CLOSED.

Store away from all incompatibles and combustibles (see section 10). Moisture sensitive – do not allow moisture to get into the container Avoid high humidity levels. Do not allow water to get into container. Keep away from fire, heat, flame & direct sunlight. Keep container tightly closed. Keep out of reach of children. Never store damp or contaminated material. Ideally store below 25°C.

7.2 Recommended Handling Precautions

See section 8 below.

8. Exposure Controls/Personal Protection

8.1 Control Parameter

Sodium dichloroisocyanurate		
State	8 Hour TWA	15 Min STEL
UK	1.5 mg/m ³	2.9 mg/ m ³

8.2 Exposure Controls

Respiratory Protection: Where any dust in the breathing zone cannot be controlled with ventilation, wear an officially approved respirator (NIOSH/MSHA or equivalent agency, Filter AB2P2. Filter AB2P3.) for protection against airborne dust.
Ventilation: Use local exhaust ventilation where appropriate

8.3 Eye Protection: If airborne dust concentrations are high, wear appropriate protective Goggles to EN 166. Wash eyes with clean water where there is potential eye contact.

8.4 Skin Protection: When handling large bulk quantities wear protective gloves. Wash immediately if skin is contaminated. Remove and wash contaminated clothing and clean up equipment before re-use. Wash thoroughly with soap and water after handling

9. Physical & Chemical Properties

Appearance:	White flat bevelled tablet
Odour:	Characteristic Chlorine Odour
pH:	As is - not applicable
pH:	In solution - 5.0 - 6.0 approx.
Solubility:	Freely soluble
Oxidising Properties:	Non oxidising solid
Flash Point:	>100°C
Flammability:	Non-flammable but can be Exothermic in temperatures >50°C especially if combined with prolonged high humidity.
Explosion Properties:	Not explosive

10. Stability & Reactivity

10.1 Stability:

The product is very stable if stored in a cool, dry well ventilated area with lid tightly closed.

10.2 Possibility of Hazardous Reaction:

Under normal conditions of storage & use, hazardous reactions will not occur. Mixing this product with (liquid) acid solutions or ammonia will release Chlorine Gas.

10.2 Conditions to Avoid:

Do not store on or near heat sources or naked flame. Avoid moisture. NaDCC decomposes at temperatures above 240°C liberating toxic gases.

10.3 Materials to Avoid:

Extremely reactive to (LIQUID) acids, alkalis & reactive to cationic and certain non-ionic surfactants.
Contact with water liberates chlorine and with nitrogen compounds may cause explosion. Avoid direct contact with organic materials; oils, grease, sawdust, reducing agents, nitrogen containing compounds, calcium hypochlorite, other oxidizers.

11. Toxicological Information

Route of entry: Inhalation, skin contact & ingestion.

Inhalation of NaDCC dust is irritating to the nose, mouth, throat and lungs.

Ingestion of NaDCC can cause irritation and or/burns to the gastrointestinal tract.

Skin & Eye Contact with NaDCC can cause severe irritation and/or burns, characterized by redness, swelling and scab formation. May cause impairment of vision and corneal damage.

Toxicological Data:

	Troclosene Sodium (NaDCC)	
Acute toxicity:	Oral LD50 (rat)	ca. 1420mg/kg
	Oral LD50 (mammal)	ca. 1670mg/kg
	Oral LDLo (human)	ca. 3570mg/kg
	Oral LD50 (rabbit)	ca. 2500mg/kg
	Dermal LD50 (rabbit)	> 2000mg/kg
	Dermal LDLo (rabbit)	ca. 3200mg/kg

Eye Irritation (rabbit): Severe irritant

Carcinogenicity: This chemical is not considered to be carcinogenic by any reference source.

Toxicological Data:

Adipic Acid – N/A as discharge during effervescence when released in water.

12. Ecological Information

12.1 Acute Toxicity

NaDCC is highly toxic to fish if released in large quantities in confined volume of water. Do not discharge into lakes, ponds, streams or public water unless in accordance with the permit of official regulations.

Species	Time	Test	Value	Units
Fish	96h	LC50	1,000	mg/l
Daphna magna	48h	LC50	1.000	mg/l

12.2 Persistence and degradability - no available data

12.3 Bio accumulative potential - not expected to bioaccumulate

12.4 Remarks

Effects on aquatic organisms due to pH shift. Neutralisation is necessary before waste water discharge.

13. Disposal Information

Refer to section 6, then :-

Disposal should be done in accordance with all official regulations. If material is dry, incineration is recommended.

14. Transport Information

ADR/RID

UN Number: UN3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.

Technical Name: Sodium Dichloro - 1,3,5 -Triazinetrione Anhydrous, mixture

Class: 9

Packing Group: III

Remarks: As per ADR 2021 Special Provision 375, this product when carried in a single or combination packaging containing a net quantity per single or inner packaging of 5kg or less is not subject to any other provisions of ADR provided the packaging meets the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG

UN Number: UN3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Sodium Dichloro - 1,3,5 -Triazinetrione Anhydrous, mixture)

Technical Name: Sodium Dichloro - 1,3,5 -Triazinetrione Anhydrous, mixture

Class: 9

Packing Group: III

Remarks: Sodium Dichloro - 1,3,5 -Triazinetrione Anhydrous, mixture (Dichloroisocyanuric acid, salts) are not designated as a marine pollutant in accordance with IMDG 2018.

Can be shipped under Limited Quantity provisions provided packed in combination packaging, maximum permitted quantity per inner packaging is 5kg. The total gross weight of completed package can not exceed 30kg gross weight.

ICAO/IATA**UN Number:** UN3077**Proper Shipping Name:** Environmentally hazardous substance, solid, n.o.s. (Sodium Dichloro - 1,3,5 -Triazinetrione Anhydrous, mixture)**Technical Name:** Sodium Dichloro - 1,3,5 -Triazinetrione Anhydrous, mixture**Class:** 9**Packing Group:** III**Remarks:** As per IATA 62nd Edition Special Provision A197, this product is not subject to the requirements of IATA provided that it is packed in single or combination packaging's of 5kg or less and that the packaging's meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.**15. Regulatory Information**

15.1 Safety, health and environmental regulations:

The product is classified in accordance with the Chemicals (Hazard Information and EC Regulation 1272/2008 (CLP). Other regulatory information and provisions are not applicable for this product.

15.2 Chemical safety assessment N/A

16. Other Information

Full test risk phrases section 2: 50/53 very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

NOTE: The information herein relates only to the specific material designated and may not be valid for such material if used in combination with other material or in another process. This information is presented in good faith to the best of the company's knowledge and believed to be correct at the date prepared however no warranty or representation expressed or implied is made as to the accuracy or completeness of the information or continuing accuracy of this data. In no event will Maclin Group be responsible for damages of any nature whatsoever resulting from the use or reliance of this data. It is for the user to satisfy themselves as to the suitability of such information for their particular use. The user assumes all liability for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product. END

Revision 14: 17th March 2021 (Original Doc: 15th May 2018)