

Safety data Sheet

Acc. to EC Regulation 1907 / 2006 Rev 06.1/2023 /



Carbolic Auramine (Auramine phenol)

SECTION 1: Identification of the substance/mixture and of the company/undertaking :

1.1 Product Identifiers

Product names: Carbolic Auramine (Auramine Phenol) REACH: This product is exempt due to tonnage restrictions.

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

Uses: laboratory Chemicals.

1.3 Details of the supplier of the safety data sheet :

Company: Svizera Europe BV. Almere. The Netherlands Tel: [+31 36 539 7340](tel:+31365397340) www.svizera.org

1.4 Emergency Phone: [+31 36 539 7340](tel:+31365397340)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture according to EC Reg 1272/2008

Acute toxicity, Cat 3, Oral, Acute toxicity, Cat 3, Inhalation,

Acute toxicity, Cat 3, Dermal. Specific target organ toxicity - single exposure, Cat 1, Eyes,

Specific target organ toxicity- repeated exposure. Cat 2. Nervous system, Kidney, Liver, Skin

H301 +311+331 Toxic if swallowed, in contact with skin/eyes and if inhaled.

H319 Causes serious eye irritation H350+341 May cause cancer/ genetic defects

H332+301 Harmful if inhaled or in contact with skin . H373 May cause damage to organs from repeated exposure

P233 Keep container tightly closed. P262 Do not get in eyes, on skin or clothing

P301 If Swallowed- rinse mouth with water P302 If on skin- rinse with water

P305 If in eyes apply eye bath for several minutes P306 If on clothing, remove workwear and rinse with water.

P314 If you feel unwell or symptoms persist seek medical attention.

H351 Suspected of causing cancer

H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements: Signal word: Danger



2.3 Other hazard

Not components considered PBT or vPvB at levels 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substance: Liquid, aqueous

3.2 Composition information: Hazardous components detailed: MIXTURE

(Date given in table below for 100% concentration of the items detailed)

Ethanol 15% CAS: 64-17-5 Flamm Liquid Cat 2 . H225 , Eye irritation, cat 2., H319

Phenol 5% , CAS: 108-95-2, Germ Cell Mutagenicity, Cat 2, H341/ Ac. Toxicity, Cat 3, H331, H30

Specific target organ toxicity- repeated exposure. Cat 2. Nervous system, Kidney, Liver, Skin H315

Glycols (MEG) 15% CAS: 107-21-1 Acute toxicity, Cat 4, H302

Specific target organ toxicity - repeated exposure, Cat 2, H373

Auramine O : Acute toxicity, Category 4, Oral, H302 Eye irritation, Category 2, H319 Carcinogenicity, Category 2, H351 Long-term (chronic) aquatic hazard, Category 2, H411

SECTION 4: First Aid Measures

4.1 Description of first aid measures

If inhaled: Move person into 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.

If symptoms persist seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed .

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5

Firefighting measures

5.1 Extinguishing media: Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture: Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides HCl

5.3 Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information : No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Avoid breathing vapours, mist or gas. For personal protection see section 8.

6.2 Environmental precautions: Do not allow product to enter drains.

6.3 Methods and materials for containment and cleaning up: Keep in suitable, closed containers for disposal.

6.4 Reference to other sections: For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Keep containers tightly sealed.

7.2 Conditions for safe storage, including any incompatibilities: Store at 10-25C Do not use metal containers.

7.3 Specific end use(s) Apart from the uses mentioned in section 1.2: No other specific uses are stipulated

8 Exposure Control & Personal Protection

8.1 Control parameters

Control parameters for this material are not determined. No data available.

8.2 Exposure Controls

Skin, eye, and respiratory protections are required along with using this product in an area of good ventilation or under an efficient

fume extractor. Vapours of phenol and ethylene glycol are likely to be present using this reagent.

Personal protective equipment: General protective and hygienic measures. The usual precautionary measure should be adhered to in handling the chemicals. Keep away from foodstuffs and beverages.. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.

Protection of hands: Impervious gloves - Nitrile 0.11 mm min.

Full contact: Nitrile rubber Glove thickness: 0.11 mm Break through time: > 480 min

Splash contact: Nitrile rubber Glove thickness: 0.11 mm Break through time: > 480 min

Eye protection: Safety glasses or full face protection.

Face protection/body protection: Protective work clothing, face guard.

Respiratory protection: Use under efficient ventilation wearing respirator against organic vapours.

Additional information: Do not let product enter drains other than public sewers to treatment works.

SECTION 9:

Physical and chemical properties

9.1 Information on basic physical and chemical properties

- a) Appearance Form: Yellow liquid
- b) Odour - Glycolic/ Phenolic
- c) Odour Threshold No data available
- d) pH : No data
- e) Melting point/freezing point No data available
- f) Initial boiling point and boiling range. Range approx 80 C
- g) Flash point - No data
- h) Evaporation rate No data available
- i) Flammability (solid, gas) - Flammable
- J) Upper/lower flammability or explosive limits No data available
- k) Vapour pressure No data available
- l) Vapour density No data available
- m) Relative density approx 1.0 g/cm³ at 20 C
- n) Water solubility - Soluble in water at 20 C
- 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: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity: See section 10.3

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: Violent reactions possible with: The generally known reactive partners of water and

alcohols.

10.4 Conditions to avoid: Heat

10.5 Incompatible materials: Any substance known to react with aqueous solutions/ alcohols.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon / Nitrogen/Sulphur oxides. HCl

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Phenol (Data for 100% Phenol)

Acute toxicity - LD50 Rat, oral: 340 mg/kg body weight

LDLo human, oral: 140 mg/kg body weight

LD50 Rat, dermal: 660 mg/kg body weight

LC50 Rat, inhalative: 316 mg/m³/4h

Ethanol (Data for 100% Ethanol).

Acute toxicity - LD50 Rat, oral 7060 mg/kg

LC50 Rat, inhalation 96 mg/kg

Ethylene glycol 100%

Acute toxicity - LD50 Mouse, dermal >3500 mg/kg

LD50 Rat, oral >4700 mg/kg

Skin corrosion/irritation - Not determined but irritation, damage to tissues is likely depending on level of exposure.

Serious eye damage/eye irritation - Will cause eye irritation and possible damage.

Respiratory or skin sensitisation- Possible irritation and sensitisation

Germ cell mutagenicity - No data available

Carcinogenicity IARC:

Phenol 100% - Muta.2. Suspected of causing genetic defects.

Auramine O suspected of causing cancer

Reproductive toxicity - No data available

Specific target organ toxicity - single exposure - No data available

Specific target organ toxicity (Repeated exposure) - May cause damage to organs (kidney) through prolonged or repeated exposure (if swallowed)

Aspiration hazard - No data available

Additional Information RTECS: Not available

Auramine O

SECTION 12: Ecological information

12.1 Toxicity:

Phenol (data for 100% concentration)

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in most species tested).

Category (Acute 2) Aquatic toxicity:

Algae toxicity: EC50 Pseudokirchnerella subcapitata, (freshwater, cell number): 61.1 mg/L/96h.

Bacterial toxicity: IC50 Nitrosomonas sp: 21 mg/L/24h.
Daphnia toxicity: EC50 Ceriodaphnia dubia: 3.1 mg/L/48h.
Fish toxicity: LC50 Oncorhynchus mykiss: 8.9 mg/L/96h.
Long term fish toxicity: 60 d NOEC (cirrhina mrigala): 0.0077 mg/L
Ethanol 100%
LC50 orfe (Leuciscus idus) 96hr 8140mg/l
EC50 daphnia magna 48hr 9000-14000 mg/l

Ethylene glycol 100%
Aquatic Toxicity (Acute)
LC50 Fish 96Hr >72.860 mg/l
EC50 Daphnia Magna 48Hr >100 mg/l
ErC50 Algae 96Hr <13.000mg/l

12.2 Persistence and degradability: Readily degradable.

12.3 Bioaccumulative potential: Expected to be low.

12.4 Mobility in soil: Expected to be high.

SECTION 13: Disposal considerations

Product: Run waste to Public Sewer.

Uncleaned packagings: Rinse with water and recycle as PE.

Recommended cleaning agent: Water, if necessary with cleaning agent (surfactant or alcohols . Decolourise with hypochlorite bleach.

SECTION 14: Transport information

14.1 UN number: (All modes) 2821
14.2 UN proper shipping name: (All Modes) Phenol solution
14.3 Transport hazard class(es) (All Modes) 6.1
14.4 Packaging group : (All modes) PG III
14.5 Environmental hazards: Marine Pollutant
14.6 Special precautions for user: No data available

SECTION 15 REGULATORY INFORMATION

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

EU regulations

Major Accident Hazard	SEVESO III
Legislation	No applicable
Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at work.

Substances of very high concern This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of > 0.1 % (w/w).

SECTION 16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information 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.

Immersion oil SDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking :

1.1 Product Identifiers

Product names/ Codes: Immersion Oil

REACH: This product is exempt due to tonnage restrictions.

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

Uses: laboratory Chemicals.

1.3 Details of the supplier of the safety data sheet :

Company: Svizera Europe BV. Almere. The Netherlands Tel: [+31 36 539 7340](tel:+31365397340) www.svizera.org

1.4 Emergency Phone: +31 36 539 7340

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture according to EC Reg 1272/2008

H411 Toxic to aquatic life with long lasting effects P273 Avoid release to environment

P501 Dispose of spillage, contents, containers to approved waste disposal plant.

P202 Do not handle until all safety information has been read and understood

P210 Keep away from sources on ignition. No smoking. P273 Avoid release to the environment

P233 Keep container tightly closed P262 Do not get in eyes, on skin or clothing

P301 If Swallowed- rinse mouth with water P302 If on skin- rinse with soap & water

P305 If in eyes apply rinse with water/ eye bath P306 If on clothing, remove work wear and wash with detergent.

P314 If you feel unwell or symptoms persist seek medical attention.

2.2 Label elements: Signal word: Warning



2.3 Other hazard

No components considered PBT or vPvB at levels 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substance: Liquid, mixture.

3.2 Composition information: Only hazardous components detailed.

polyphenyls, triphenyls 25% CAS: 61788-32-7 Chronic aquatic toxicity, Category 2, H411
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SECTION 4: First Aid Measures

4.1 Description of first aid measures

If inhaled: Move person into fresh air., support breathing if necessary.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Flush eyes with water or apply eye bath as a precaution. Seek medical attention.

If swallowed: Rinse mouth with water.

If symptoms persist seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed .

The most important known symptoms and effects are described in section 2 and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5

Firefighting measures

5.1 Extinguishing media: Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture:

5.3 Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information : No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Avoid breathing vapours, mist or gas. Use under efficient fume hood. For personal protection see section 8.

6.2 Environmental precautions: Do not allow product to enter surface water drains or the environment.

6.3 Methods and materials for containment and cleaning up: Keep in suitable, closed containers for disposal.

6.4 Reference to other sections: For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Keep containers tightly sealed away from heat and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities: Store at room temperature or below .

7.3 Specific end use(s) Apart from the uses mentioned in section 1.2: No other specific uses are stipulated

8 Exposure Control & Personal Protection

8.1 Control parameters

Control parameters for this material are not determined.

Details below are for components shown in their 100% pure form:

Hydrogenated polyphenyls (terphenyl)

Occupational Exposure Limit

Form of Exposure (Value)	Control Parameters	Basis
STEL	5ppm / 48mg m3	2017/164/EU
TWA	2ppm / 19mg m3	2017 /164EU
TWA	2ppm / 19mg m3	GB EH40
STEL	5ppm / 48mg m3	GB EH40

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Polyphenyls , triphenyls

End use	Routes of Exposure	Potential health effects	Value
Workers	Skin contact	Long term exposure, systemic effects	46.3mg/kg bw/day
Workers	Inhalation	Long term exposure, systemic effects	8.38 mg m3
Workers	Skin contact	Long term exposure, local effects	0.1mg/cm2
Workers	Inhalation	Long term exposure, local effects	83.8mg m3

Predicted No Effect Concentration (PNEC) acc. Reg EC 1907/2006

Polyphenyls, triphenyl

Environmental Compartment	Value
Fresh water	2 µg/l
Marine water	0.1 µg/l
Intermittent	13.4mg/L
Fresh water sediment	63.2mg/L
Marine sediment	6.32mg/L
Soil	12.6 mg/kg
Sewage treatment plant	10.3 mg/L

8.2 Exposure Controls

Skin, eye, and respiratory protections are required along with using this product in an area of good ventilation or under an efficient fume extractor.

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment: General protective and hygienic measures. The usual precautionary measure should be adhered to in handling the chemicals. Keep away from foodstuffs and beverages.. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.

Protection of hands: Impervious gloves - Nitrile 0.11 mm min.

Eye protection: Safety glasses or full face protection.

Face protection/body protection: Protective work clothing, face guard.

Respiratory protection: Use in adequately ventilated environment. . Wear respirator if heating this product.

Additional information: Do not let product enter drains or environment. All waste/ spills/ empty containers should be sent to licensed waste contractor for correct disposal.

SECTION 9:

Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Oily liquid
Appearance	Colourless
Flashpoint	N/A
Flammability	No
Rel Density	1.05 g/ml
Water solubility	No
Alcohol soluble	Soluble in Propanol, partly soluble in Ethanol.
Odour	None

9.2 Other safety information: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity: See section 10.3

Not known.

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: Not known.

10.4 Conditions to avoid: Heat and strong sunlight.

10.5 Incompatible materials: Strong oxidising agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - carbon oxides (acrid smoke).

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

This product is a mixture – data provided of total toxicity and associated risk has been for the stated component in their pure (100%) form.

Component: polyphenyls, triphenyls

Acute animal toxicity data. Oral : LD50 , rat, > 10,000 mg/kg.

Practically non-toxic following oral administration.

Dermal : LD50 , rabbit > 2,000 mg/kg. No more than slightly toxic.

Eye irritation: rabbit, practically non-irritating to eyes (rabbit 24 Hr).

Skin irritation: rabbit, practically non-irritating to skin (rabbit 24 Hr).

Skin sensitization: Human experience. Predictive patch testing on human volunteers did not produce irritation or sensitization (data obtained on similar product). Human experience of significant period contact during manufacture and processing has not produced any obvious or noticeable irritation or sensitization.

Germ Cell Mutagenicity: Genotoxicity in vitro :

Test Type: Mutagenicity - Bacterial Method: Bacterial Reverse Mutation Assay - Result: negative

Test Type: Chromosome aberration test in vitro Method: In vitro Mammalian Cell Gene Mutation - Test Result: negative

Test Type: Mutagenicity - Mammalian Result: negative

Genotoxicity in vivo : Species: Rat Method: Mammalian Bone Marrow Chromosome Aberration Test Result: negative

Carcinogenicity: Species : Mouse, male and female Application Route : Dermal Remarks : Not classified,

Reproductive Toxicity: Effects on fertility - Remarks: No data available

STOT (Single exposure) : No data available STOT (Repeated exposure): -No data available

Repeated Dose Toxicity:

Species : Rat NOAEL : 12 mg/kg LOAEL : 120 mg/kg Application Route : Oral Study Exposure time : 90 d

Species : Rabbit NOAEL : 2,000 mg/kg Application Route : Dermal

Target organs: Eyes, skin, respiratory system, liver, kidneys, hematopoietic system

Aspiration hazard - No data available Additional Information RTECS: Not available

SECTION 12: Ecological information

12.1 Toxicity: Toxic to aquatic organisms.

Component: polyphenyls , triphenyls

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (algae)): 56 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR: 1 mg/l End point: mortality Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l Exposure time: 96 h Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR: 1 mg/l End point: mortality Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

12.2 Persistence and degradability: Partly biodegradable

12.3 Bioaccumulative potential: Bioaccumulation : Bioconcentration factor (BCF): 700 - 5,200 Partition coefficient: noctanol/water : log Pow: > 6.5

12.4 Mobility in soil: Distribution among environmental compartments : log Koc: 5.5

12.5 Results of PBT and vPvB assessment: Assessment : This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

12.6 Additional Information : No data.

SECTION 13: Disposal considerations

Product: Keep waste oil , containers and any tissue contaminated with oil for incineration/ disposal through waste contractor.

Uncleaned packagings: keep for disposal/ incineration through waste contractor.

Recommended cleaning agent: Xylene, higher alcohols such as propanol.

SECTION 14: Transport information

14.1 UN number: (All modes) 3082

14.2 UN proper shipping name: (All modes): Environmentally hazardous substance, liquid, n.o.s (Immersion oil)

14.3 Transport hazard class(es) :(All Modes) 9

14.4 Packaging group (All modes) PG III

14.5 Environmental hazards: Marine pollutant

14.6 Special precautions for user: No data available

SECTION 15 REGULATORY INFORMATION

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

EU regulations

Major Accident Hazard	SEVESO III
Legislation	Not applicable
Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at work.
Substances of very high concern	This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of > 0.1 % (w/w).

SECTION 16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information 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.

Sodium dichloroisocyanurate (chlorine) tablets SDS

1. Identification of the substance/preparation and of company/undertaking

Product name: Chlorine tablets

Manufacturer/supplier identification

Company :Svizera Europe BV. Almere. The NetherlandsTel: [+31 36 539 7340](tel:+31365397340) www.svizera.org

Emergency phone: [+31 36 539 7340](tel:+31365397340)

2. Hazards Information:

Harmful by inhalation, ingestion, skin contact.

Contact with acids liberates TOXIC GAS (Chlorine)

3. Composition/information of ingredients

Hazardous ingredients: Sodium dichloroisocyanurate 1.67 gm per tablet

3.1 Chemical Name

<u>Chemical Name, Synonym, Family, Formula</u>	<u>EC/EINECS No</u>	<u>CAS No</u>	<u>Content %</u>	<u>REACH Registration Status</u>
Sodium dichloroisocyanurate Anhydrous (NaDCC) <u>Chemical Name:</u> 1,3,5 - Triazine -2,4,6 (1H,3H,5H) Trione 1,3, - Dichloro, Sodium Salt <u>Synonyms:</u> Sodium Dichloro -1,3,5 - Triazinetrione Anhydrous. Sodium Dichloro - S - Triazine -2,4,6 1H,3H,5H)-Trione. Troclosene Sodium. <u>Chemical Family:</u> Chlorinated S Triazine Trione <u>Formula:</u>	220-767-7	2893-78-9	30 - 60% w/w	FULL

$3\text{Cl}_2\text{N}_3\text{O}_3\text{Na}$				
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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>
Adipic Acid 1,6- Hexanedioic Acid - Range <u>Chemical Family:</u> Saturated Dicarboxylic Acid <u>Synonyms:</u> 1,4 - Butanedicarboxylic Acid Adipinic Acid <u>Formula:</u> $\text{COOH}(\text{CH}_2)_4\text{COOH}$	204-673-3	124-04-9	10 - 25% w/w	N/A

4. First aid measures:

IF INHALED: Remove from exposure to clear air zone. Get urgent medical attention if you feel unwell.

IN ON SKIN OR IN EYES: Wash with water and apply eye bath for at least 5 minutes. Get urgent medical attention for all eye injuries by chemicals.

IF SWALLOWED: Rinse/clean mouth with water. Get urgent medical attention if you feel unwell.

Tablet effect:

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:

Special risks: If involved in fire will release chlorine oxides

Suitable extinguishing media: Water spray, dry powder.

6. Accidental release measures

Shut off all sources of ignition. Wear appropriate protective clothing. Absorb on an inert absorbent material, transfer to a suitable container and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent. For large spillages, liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

7. Handling and storage

Change contaminated clothing. Wash hands after

working with substance. Avoid contact with eyes. Wear eye protection.

Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight. Keep away from flammable materials.

8. Exposure controls/personal protection

As appropriate to the situation and the quantity handled.

Respirator: Self-contained breathing apparatus against dust and inorganic gasses.

Ventilation: Use only in a well ventilated area.

Gloves: Rubber or plastic.

Eye protection: Goggles or face-shield.

Other precautions: If handling larger quantities, wear plastic apron, sleeves, boots.

8.2 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

9. Physical and 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 and reactivity

Stable as supplied.

Substances to be avoided: None known.

The possibility of reaction with other substances cannot be excluded.

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:

	Trosclosene 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

Adverse ecological effects cannot be excluded in the event of improper handling or disposal. Do not allow to enter drinking water supplies. Do not allow into natural water courses.

Toxic to micro-organisms.

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 considerations

Dissolve in water and dispose to drain.

Chemical residues are generally classified as special waste and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.

14. Transport information.

14.1 UN Number: (All Modes) UN 3077

14.2 UN Proper Shipping name: (All Modes) Environmentally hazardous substance, solid. n.o.s (chlorine tablets)

14.3 Transport Hazard Class(es) : (All Modes) Class 9

14.4 Packaging group: (All Modes) PG III

14.5 Environmental Hazards: (All Modes) None

14.6 Special precautions for user: No data available.

15. Regulatory Information: Environmental Hazard labelling according to EC directives

May cause irritation to skin, eyes, respiratory system.

May cause respiratory irritation if inhaled.

Contact with acid releases TOXIC GAS (Chlorine)

Wear respiratory protection and full body protection when using.

Do not empty into drains or water courses. Rinse empty containers with water and dilute residue to sewer with running water.

Use in a well ventilated area or under a fume hood. This product should be stored locked away and for use only by trained technicians.

Methylene blue solution SDS

1. Identification of the substance/preparation and of company/undertaking

Product name: Methylene blue solution.

Manufacturer/supplier identification

Company: Svizera Europe BV. Almere. The Netherlands Tel: [+31 36 539 7340](tel:+31365397340) www.svizera.org

Emergency telephone number: [+31 36 539 7340](tel:+31365397340)

2. Hazards Information:

Harmful by ingestion, eye / skin contact.

3. Composition/information of ingredients

Hazardous ingredients: Methylene blue 0.1 - 0.3% w/v

4. First aid measures:

IF INHALED: Remove from exposure to clear air zone. Get urgent medical attention if you feel unwell

IN ON SKIN OR IN EYES: Wash with water and apply eye bath for at least 5 minutes. Get urgent medical attention for all eye injuries by chemicals.

IF SWALLOWED: Rinse/clean mouth with water. Get urgent medical attention if you feel unwell.

5. Fire fighting measures:

Special risks: None.

Suitable extinguishing media: Water spray, dry powder.

6. Accidental release measures

Shut off all sources of ignition. Wear appropriate protective clothing. Absorb on an inert absorbent material, transfer to a suitable container and arrange removal by disposal company. Wash site of spillage thoroughly with water and detergent. For large spillages, liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

7. Handling and storage

All electrical equipment must be flame proofed. Change contaminated clothing. Wash hands after working with substance. Avoid contact with eyes.

Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight. Keep away from flammable materials.

8. Exposure controls/personal protection

As appropriate to the situation and the quantity handled.

Respirator: Self-contained breathing apparatus.

Ventilation: Use only in a well ventilated area.

Gloves: Rubber or plastic.

Eye protection: Goggles or face-shield.

Other precautions: If handling larger quantities, wear plastic apron, sleeves, boots.

9. Physical and chemical properties:

Form: Blue liquid Colour: Blue Odour: Faint

Melting temperature: n/a Boiling temperature: n/a

Solubility in water: Soluble

10. Stability and reactivity

Stable as supplied.

Substances to be avoided:

The possibility of reaction with other substances cannot be excluded.

11. Toxicological information

After inhalation: No data

After eye contact: Irritation.

After skin contact: Possible irritation. blue staining.

After absorption: Headache, dizziness, inebriation, unconsciousness, narcosis.

After the uptake of large quantities: respiratory paralysis, coma. Deoxygenation of blood.

12. Ecological information

Adverse ecological effects cannot be excluded in the event of improper handling or disposal. Do not allow to enter drinking water supplies. Do not allow into natural water courses.

Harmful to micro-organisms.

13. Disposal considerations

Chemical residues are generally classified as special waste and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly

before returning for recycling.

14. Transport information

Not Restricted

15. Regulatory Information: Harmful according to EC directives

GHS format: H302, P260, P262,

May cause irritation to skin, eyes.

Ingestion may deoxygenate the blood.

Do not empty into drains or water courses.

Rinse empty containers with water to drain.

Use in a well ventilated area or under a fume hood.

This product should be stored locked away and for use only by trained technicians.

SECTION 16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information 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.

Acid alcohol SDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking :

1.1 Product Identifiers

Product names/ Codes: Acid alcohol

REACH: This product is exempt due to tonnage restrictions.

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

Uses: laboratory Chemicals.

1.3 Details of the supplier of the safety data sheet :

Svizera Europe BV. Almere. The Netherlands Tel: [+31 36 539 7340](tel:+31365397340) www.svizera.org Company:

1.4 Emergency Phone: [+31 36 539 7340](tel:+31365397340)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture according to EC Reg 1272/2008

H290 maybe corrosive to metals H225 Highly flammable liquid and vapour

H302 Harmful if swallowed H315 Causes skin irritation (possible burns).

H319 Causes serious eye irritation

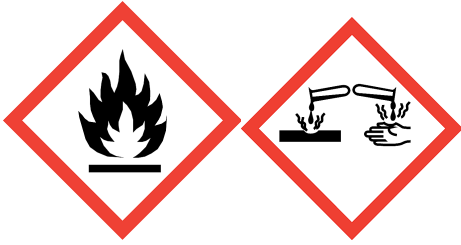
P233 Keep container tightly closed P262 Do not get in eyes, on skin or clothing

P301 If Swallowed- rinse mouth with water P302 If on skin- rinse with water

P305 If in eyes apply eye bath P306 If on clothing, remove workwear and rinse with water.

P314 If you feel unwell or symptoms persist seek medical attention.

2.2 Label elements: Signal word: DANGER



2.3 Other hazard

Not components considered PBT or vPvB at levels 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substance: Mixture, Liquid, alcoholic

3.2 Composition information: Hazardous components detailed:

Hydrochloric acid 0.5 - 3.0% CAS: 7647-01-0 Corrosive to metals, Category 1, H290 Skin irritation, Category 2, H315 Eye irritation, Category 2, H319 Specific target organ toxicity - N/A at this concentration

Ethanol denatured 99% CAS: 64-17-5 Flam. Liq. 2; Eye Irrit. 2; H225, H319

Concentration limits: $\geq 50\%$: Eye Irrit. 2A, H319;

Methanol 5% CAS: 67-56-1 Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301, H331, H311, H370

Concentration limits: $\geq 10\%$: STOT SE 1, H370; $3 - < 10\%$: STOT SE 2, H371;

SECTION 4: First Aid Measures

4.1 Description of first aid measures

If inhaled: Move person into 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.

If symptoms persist seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed .

The most important known symptoms and effects are described in section 2.2 and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5

Firefighting measures

5.1 Extinguishing media: Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture: Carbon oxides, Nitrogen oxides (NO_x),

5.3 Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information : No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Avoid breathing vapours, mist or gas. For personal protection see section 8.

6.2 Environmental precautions: Do not allow product to enter drains.

6.3 Methods and materials for containment and cleaning up: Keep in suitable, closed containers for disposal.

6.4 Reference to other sections: For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Keep containers tightly sealed.

7.2 Conditions for safe storage, including any incompatibilities: Store at room temperature or below. Do not use metal containers.

7.3 Specific end use(s) Apart from the uses mentioned in section 1.2: No other specific uses are stipulated

8 Exposure Control & Personal Protection

8.1 Control parameters

Workplace Exposure Limits WEL

Component	UK	EU
Ethanol	WEL -TWA: 1000 ppm WEL - STEL 3000 ppm	
Methanol	WEL- TWA: 200 ppm WEL - STEL : 250 ppm	
Hydrochloric acid	Long-term exposure limit (8-hour TWA): WEL 1 ppm 2 mg/m ³ Short-term exposure limit (15-minute): WEL 5 ppm 8 mg/m ³ WEL = Workplace Exposure Limit DNEL Workers - Inhalation; Long term local effects: 8 mg/m ³ Workers - Inhalation; Short term local effects: 15 mg/m ³ PNEC - Fresh water; 36 mg/l - Marine water; 36 mg/l - Intermittent release; 45 mg/l - STP; 36	

Biological limit values

No data

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours

MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent description and gas chromatography

MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

8.2 Exposure Controls

Engineering Measures

Use only under a chemical fume hood / extractor unit. Ensure that eyewash stations and safety showers are close to the workstation location.. Ensure adequate ventilation, especially in confined areas.

Skin, eye, and respiratory protections are required along with using this product in an area of good ventilation or under an efficient fume extractor. Use explosion-proof electrical/ventilating/lighting/equipment

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment: General protective and hygienic measures. The usual precautionary measure should be adhered to in handling the chemicals. Keep away from foodstuffs and beverages.. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.

Protection of hands: Impervious gloves - Latex rubber , nitrile, pvc coated

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
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Butyl rubber Neoprene PVC Viton (R)	>480 minutes >480 minutes > 60 minutes >480 minutes	0.38 mm - 0.56 mm 0.45 mm 0.18 mm 0.7 mm	Level 6 EN 374	As tested under EN374-3 Determination of Resistance to Permeation by Chemicals
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Skin, eye, and respiratory protections are required along with using this product in an area of good ventilation or under an efficient fume extractor.

Personal protective equipment: General protective and hygienic measures. The usual precautionary measure should be adhered to in handling the chemicals. Keep away from foodstuffs and beverages.. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.

Protection of hands: Impervious gloves - Latex rubber , nitrile, pvc coated

Eye protection: Safety glasses or full face protection.

Face protection/body protection: Protective work clothing, face guard.

Respiratory protection: Use under efficient ventilation wearing respirator against organic / solvent vapours.

Additional information: Do not let product enter drains other than public sewers diluted with water to treatment works.

SECTION 9:

Physical and chemical properties

9.1 Information on basic physical and chemical properties

- a) Appearance Form: Colourless liquid
- b) Odour - Faint - alcoholic
- c) Odour Threshold No data available
- d) pH 1.2 50:50 /water
- e) Melting point/freezing point No data available
- f) Initial boiling point and boiling range. 73 -76C
- g) Flash point 12C
- h) Evaporation rate No data available
- i) Flammability (solid, gas) - Flammable
- J) Upper/lower flammability or explosive limits No data available
- k) Vapour pressure No data available
- l) Vapour density No data available
- m) Relative density 0.90-0.93 g / ml
- n) Water solubility - Soluble in water at 20 C
- 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: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity: See section 10.3

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: Violent reactions possible with: compounds likely to react with simple alcohols and acidic substances.

10.4 Conditions to avoid: Heat & alkalis.

10.5 Incompatible materials: Oxidising agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon and Chlorine oxides

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity -

Hydrochloric acid

Skin corrosion/irritation - Corrosive causes skin burns.

Serious eye damage/eye irritation - Will cause eye irritation and possible damage.

Respiratory or skin sensitisation - Irritant to respiratory system.

Germ cell mutagenicity - No data

Carcinogenicity IARC: No data

Reproductive toxicity - No data available

Specific target organ toxicity - single exposure - No data available

Aspiration hazard - No data available

Additional Information RTECS: Not available

Ethanol

Ethanol (Data for 100% Ethanol).

Acute toxicity - LD50 Rat, oral 7060 mg/kg

LC50 Rat, inhalation 96 mg/kg

Skin corrosion/irritation - Not determined but irritation, damage to tissues is likely depending on level of exposure.

Serious eye damage/eye irritation - Will cause eye irritation and possible damage.

Respiratory or skin sensitisation- Possible irritation and sensitisation

Germ cell mutagenicity - No data available

SECTION 12: Ecological information

12.1 Toxicity:

Hydrochloric acid

Acute toxicity - fish LC₅₀, 96 hours: 20.5 mg/l Algae

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.45 mg/l, Daphnia magna

Ethanol

Acute toxicity - aquatic plants EC₅₀, 72 hours: 0.73 mg/l,

LC50 Fish 96Hr >72.860 mg/l EC50 Daphnia Magna 48Hr >100 mg/l ErC50 Algae 96Hr <13.000mg/l

Aquatic toxicity (chronic)

LC50 >1.500 mg/l fish 28 d EC50 >15.000 mg/l aquatic invertebrates 21 d

NOEC ≥1.000 mg/l aquatic invertebrates 23 d growth (EbCx) 20% >1.995 mg/l microorganisms 30 min

METHANOL (at <4% / V in the product)

No accurate data available for this section

HYDROCHLORIC ACID (at 3% / V in the product)

No accurate data available for this section

ETHANOL (data given below for 100% ethanol)

Toxicity to fish LC50 *Leuciscus idus* (Golden orfe): 8,140 mg/l; 48 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates EC5 *E.sulcatum*: 65 mg/l; 72 h (maximum permissible toxic concentration) (Lit.)

EC50 *Daphnia magna* (Water flea): 9,268 - 14,221 mg/l; 48 h (IUCLID)

Toxicity to algae IC5 *Scenedesmus quadricauda* (Green algae): 5,000 mg/l; 7 d (maximum permissible toxic concentration) (Lit.)

Toxicity to bacteria EC5 *Pseudomonas putida*: 6,500 mg/l; 16 h (maximum permissible toxic concentration) (IUCLID)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) semi-static test NOEC *Daphnia magna* (Water flea): 9.6 mg/l; 9 d (ECHA)

12.2 Persistence and degradability: Readily degradable.

12.3 Bioaccumulative potential: Expected to be low.

12.4 Mobility in soil: Expected to be high.

SECTION 13: Disposal considerations

Product: Run waste diluted with water to Public Sewer.

Uncleaned packaging: Rinse with water and recycle as PE.

Recommended cleaning agent: Water, if necessary with cleaning agent (surfactant or alcohols . De-colourise with hypochlorite bleach.

SECTION 14: Transport information

14.1 UN number: (All modes) UN 2924

14.2 UN proper shipping name: (All modes): Flammable liquid , Corrosive N.O.S (acid alcohol)

14.3 Transport hazard class(es) (All Modes) Class 3 (8)

14.4 Packaging group (All modes) PG II

14.5 Environmental hazards: None

14.6 Special precautions for user: No data available

SECTION 15 REGULATORY INFORMATION

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

EU regulations

Major Accident Hazard	SEVESO III Legislation	No applicable
Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at work.	
Substances of very high concern	This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of > 0.1 % (w/w).	

SECTION 16: Other information

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