

Milton[®] tablets

Safety data sheet

Prepared in accordance with Regulation (EC) No. 1907/2006 (REACH)

Version 1.2 | Created: 7 May 2014 | Revised: 1 June 2015

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

Product identifier	<i>Milton</i> [®] tablets
Trade name/Brand	<i>Milton</i> [®] tablets
Synonym(s)	None.
REACH number	Mixture, not applicable
CAS number	Mixture, not applicable
EC number	Mixture, not applicable
Relevant identified uses	<p><i>Milton</i>[®] is a wide-spectrum disinfectant and cleaning agent, suitable for disinfecting work surfaces and utensils.</p> <p>An aqueous solution of <i>Milton</i>[®] should be prepared from the tablets in accordance with the instructions in the NCBE <i>Cauliflower cloning kit</i> (See Section 16).</p>
Uses advised against	The disinfectant solution should not be used at the high concentration and for the duration suggested in the kit for cleaning metal items (such as forceps) as it can damage them.
Supplier of the product and of this safety data sheet	<p>National Centre for Biotechnology Education (NCBE) University of Reading 2 Earley Gate Whiteknights READING RG6 6AU United Kingdom</p> <p>T: 0118 9873743 F: 0118 9750140 E: NCBE@reading.ac.uk W: www.ncbe.reading.ac.uk</p>
Manufacturer of the product	<p>Laboratoire Rivadis Impasse du petit Rosé, ZI 79100 LOUZY France</p> <p>T: 0800 097 5606 (UK freephone number) W: www.milton-tm.com</p>
Emergency telephone number	National Poisons Information Service 0844 892 0111 (Medical professionals only . UK only)

SECTION 2. Hazards identification

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye damage (Cat. 1), H318.
 Eye irritation (Cat. 2), H319.
 Acute toxicity (Cat.4), H302.
 May intensify fire; oxidiser, H272.
 Specific target organ toxicity – single exposure (Cat. 3), Respiratory system, H335.
 Acute aquatic toxicity (Cat. 3), H400.
 Chronic aquatic toxicity (Cat. 3), H410.

Label elements



DANGER

H318 Causes serious eye damage.
 H302 Harmful if swallowed.
 H410 Very toxic to aquatic life with long lasting effects.

P260 Do not breathe fumes [chlorine].
 P264 Wash skin thoroughly after handling.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P308+P313 IF exposed or concerned: Call a POISON CENTRE or doctor/physician.

Other hazards

EUH031 Contact with acids liberates toxic gas [chlorine].

SECTION 3. Composition/information on ingredients

Name of component (Synonym) [CLP Index number]	Weight (%)	EC (EINECS) number	CAS number	REACH registration number	Classification under Regulation (EC) No 1272/2008 [CLP]*
Sodium hydrogencarbonate (Sodium bicarbonate) [011-005-00-2]	46.15	205-633-8	144-55-8	01-2119457606-32	Eye Irrit. 2 (H319)
Succinic acid [Not indexed under CLP yet]	26.83	203-740-4	110-15-6	01-2119896114-34	Eye Dam. 1 (H318)
Sodium dichloroisocyanurate (Troclosene sodium) [613-030-00-X]	19.50	220-767-7	2893-78-9	01-2119489371-33	Ox. Sol. 2 (H272) Acute Tox. 4 (H302) Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Sodium carbonate [011-005-00-2]	7.51	207-838-8	497-19-8	01-2119485498-19	Eye Irrit. 2 (H319)

* Note that these classifications refer to the pure (100%) substances.

For the full text of the safety classifications (H statements), refer to Section 16.

SECTION 4. First aid measures

General information

Never give an unconscious person anything to drink.
If symptoms persist or in all cases of doubt, seek medical advice.

Inhalation*

If irritation occurs, rinse the mouth and throat with water. Remove the victim from exposure (move them into fresh air) and lie them down. If irritation persists or there are asthma-like symptoms, seek medical advice. If the victim has stopped breathing artificial respiration and/or oxygen may be necessary. Call a doctor immediately.

Skin contact

Prolonged contact with skin causes slight irritation. Wash affected area thoroughly with water. Remove any contaminated clothing immediately and wash it before wearing again. Seek medical advice if irritation persists.

Eye contact

Check for and remove contact lenses if present. Rinse opened eye immediately with running water, also wash under the eyelids, for at least 5 minutes. Seek medical advice if irritation persists.

Ingestion

Can cause vomiting or a mild mucosal irritation. Do NOT induce vomiting. Never give an unconscious person anything to drink. If the victim is conscious, they should drink plenty of milk or water. Seek medical help immediately.

Self-protection of the first aider

Rinse your hands/skin with water if they come into contact with the solution.

Most important symptoms and effects, both acute and delayed

Not acutely toxic, but after ingestion the product may cause vomiting. If large quantities are ingested, treat symptomatically. If irritant effects are seen, these will be mild to moderate, depending upon the exposure.

Indication of any immediate medical attention and special treatment

If in contact with the eyes, flushing with water is recommended.

Advice to doctor

Treat symptomatically.

** This should not happen, as the product is supplied in tablet form specifically to prevent the formation of dust.*

SECTION 5. Firefighting measures

The product itself will not burn, although it contains an oxidising agent (sodium dichloroisocyanurate) which in sufficient quantity may intensify a fire.

Extinguishing media

Use carbon dioxide, dry chemical powders or alcohol-resistant foams. If water is used, control the run-off.

Special hazards arising from the substance or mixture

If the product is involved in a fire, it can release chlorine gas.

Advice for firefighters

Wear protective equipment and self-contained breathing apparatus if the quantity of the substance involved warrants it.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear a lab coat and eye protection. Ensure adequate ventilation when handling the solution, particularly when adding the *Milton*[®] solution to hot, molten growth medium as described in the *NCBE Cauliflower cloning kit*.

Avoid raising an airborne dust. As the product is provided in tablet form the chances of producing dust are small: you should not grind the tablets up to encourage them to dissolve (they are effervescent and will dissolve quickly).

In an emergency, evacuate personnel to safe areas. Avoid breathing the dust and any gas (chlorine) liberated.

Environmental precautions

Discharge into the environment must be avoided: prevent leakage or spillage into drains or surface water.

Methods and material for containment and cleaning up

If the quantities involved are small, wash down the drain with plenty of water to dilute the product. For larger volumes, contain the spillage, then absorb the liquid onto inert material (such as paper towels) and carefully dispose of in a sealed plastic bag according to local regulations.

Reference to other sections

See Section 13 for disposal instructions.

SECTION 7. Handling and storage

Precautions for safe handling

Wear eye protection when preparing the *Milton*[®] solution. A lab coat will prevent your clothing from being bleached.

Conditions for safe storage, including any incompatibilities

Store the tablets in the sealed packages they are supplied in, in cool, dry, well-ventilated conditions. Do not mix with or store close to acids or other cleaning agents, as chlorine gas may be produced. Keep out of reach of children.

Specific end use(s)

In the NCBE *Cauliflower cloning kit*, *Milton*[®] is used for sterilising plant tissue, forceps and for maintaining aseptic conditions in plant growth medium.

SECTION 8. Exposure controls/personal protection

Control parameters

Exposure limits	No information available.
Biological limit values	No information available.
Derived no effect level	No information available.
Predicated no effect level	No information available.

Exposure controls

Exposure limits	No information available.
Biological limit values	No information available.
Derived no effect level	No information available.
Predicated no effect level	No information available.

See Sections 6 and 7 for personal protection details.

SECTION 9. Physical and chemical properties

Physical state	Solid.
Appearance	White 25 mm diameter tablets.
Odour	Odourless.
pH	~6.5 when dissolved in water.
Solubility	Effervescent. Highly soluble in water.

SECTION 10. Stability and reactivity

Reactivity	No information available.
Chemical stability	When stored at room temperature, the product is stable.
Possibility of hazardous reactions	None under normal conditions of use.
Conditions to avoid	Do not store below 0 °C.
Incompatible materials	Do not mix with, or store close to, acids or other cleaners: toxic gas (chlorine) may be released.
Hazardous decomposition products	Chlorine may be released.

SECTION 11. Toxicological information

Information on toxicological effects

Acute toxicity	Estimated acute oral toxicity (LD50 rats) > 2 g per kg.
Irritation	May cause transient superficial eye irritation and slight skin irritation.
Corrosivity	Avoid prolonged contact with metal objects, particularly gold and silver.
Sensitisation	No evidence of skin sensitisation.
Repeated dose toxicity	No information available.
Carcinogenicity	No information available.
Mutagenicity	Not mutagenic.
Toxicity for reproduction	No information available.

SECTION 12. Ecological information

Toxicity	Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Mobility in soil	No information available.
Results of PBT and vPVB assessment	No information available.
Other adverse effects	None known.

SECTION 13. Disposal considerations

Waste treatment methods

Waste from residues/unused product	If the quantities involved are small, wash down the drain with plenty of water to dilute the product. For larger volumes, contain the spillage, then absorb the liquid onto inert material (such as paper towels) and carefully dispose of in a sealed plastic bag according to local regulations. Dispose of unused product according to local regulations that apply to chemical waste disposal.
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SECTION 14. Transport information

UN number	Not applicable.
UN proper shipping name	None assigned.
Transport hazard class(es)	Non-hazardous.
Packing group	Not applicable.
Environmental hazards	Discharge into the environment must be avoided.

Special precautions for user Product must be kept dry.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

IMDG (Sea transport)	Non-hazardous.
ADNR (Inland waterways)	Non-hazardous.
ADR (Road transport)	Non-hazardous.
RID (Rail transport)	Non-hazardous.
ICAO/IATA DGR (Air transport)	Non-hazardous.

SECTION 15. Regulatory information

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

Classified according to EU Directive 98/8/EEC as a biocide in Main Group 1. Disinfectants and General Biocides Product 4 Food and Food types.

Chemical safety assessment

All ingredients used in this formulation are EINECS registered.

SECTION 16. Other information

Full text of GHS hazard statements

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas [chlorine].

This product does not require any special training before use.

The product is unrestricted and is intended for both professional and general public use in the areas of food and water hygiene and hard surfaces along with baby bottle sterilisation as stated in Section 24 of the methods of use 98/8 ES.

Usage and handling instructions are given in this Safety Data Sheet and in the Teacher's guide which accompanies the NCBE *Cauliflower cloning kit*. This can be downloaded from the NCBE's Web site: www.ncbe.reading.ac.uk/ptc

The information given in this Safety Data Sheet is based on the present state of our knowledge.

This Safety Data Sheet has been compiled and is solely intended for this product.

This Safety Data Sheet was revised on 1 June 2015, when the older (67/548/EEC [DSD]) safety classifications were deleted.

END OF SAFETY DATA SHEET