

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name : Metam 510
Product code : TO 035 C1206
Type of formulation : Soluble concentrate (SL)
Active Ingredient : Metam-sodium

1.2. Relevant identified uses of the substance or mixture and uses advised against**2.1. Relevant identified uses**

Main use category : Plant protection product for professional use. Agriculture.
Use of the substance/mixture : Soil sterilant

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheetSupplier:

Taminco BVBA
Panterschipstraat 207
9000 Ghent, Belgium

Distributor:

CERTIS UK
Suite 5, 3 Riverside
Granta Park
Great Abington
Cambridgeshire CB21 6AD
United Kingdom
Tel: +44 (0)845 373 0305
Fax: +44 (0)1223 891210
Email: certis@certiseurope.co.uk
Website: www.certiseurope.co.uk

1.4. Emergency telephone number

Emergency number : Certis Carechem24 multilingual 24 hours emergency number: +44 (0) 870 190 6777.
For advice on medical emergencies, fires, spillages or chemical hazards only –phone: 0870 190 6777.
For further advice for medical professionals - The National Poisons Information Service:
Tel: 0870 600 6266 (UK only) or Dublin Tel: 0035 3 137 99 64/379966.
For further advice for veterinary surgeons: 020 7635 9195.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Met. Corr. 1	H290
Acute Tox. 4 (Oral)	H302
Acute Tox. 4 (Inhalation)	H332
Skin Corr. 1A	H314
Skin Sens. 1	H317
Carc. 2	H351
Repr. 2	H361
STOT RE 2	H373
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of H-phrases: see section 16

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H290 - May be corrosive to metals.
 H302 + H332 - Harmful if swallowed or if inhaled.
 H314 - Causes severe skin burns and eye damage.
 H317 - May cause an allergic skin reaction.
 H351 - Suspected of causing cancer.
 H361 - Suspected of damaging fertility or the unborn child.
 H373 - May cause damage to organs through prolonged or repeated exposure.
 H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P201 - Obtain special instructions before use.
 P260 - Do not breathe fumes.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308 + P313 - IF exposed or concerned: Get medical advice/attention.
 P390 - Absorb spillage to prevent material damage.

EUH phrases

: EUH031 - Contact with acids liberates toxic gas.
 EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

2.3. Other hazards

Use of alcoholic beverages may enhance toxic effects.

SECTION 3: Composition/information on ingredients
3.1. Substance

Not applicable.

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
metam-sodium	(CAS No) 137-42-8 (EC no) 205-293-0 (EC index no) 006-013-00-8	27 - 42	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314 Skin Sens. 1, H317 Carc. 2, H351 Repr. 2, H361 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16.

SECTION 4: First aid measures
4.1. Description of first aid measures

- First-aid measures general : In the event of any complaints or symptoms, avoid further exposure.
If symptoms persist, call a physician. Show this safety data sheet to doctor.
- First-aid measures after inhalation : IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Give oxygen. If not breathing, give artificial respiration. Obtain medical attention.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Remove contaminated clothing and shoes.
If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for at least 15 minutes, also under eyelides. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.
- First-aid measures after ingestion : IF SWALLOWED: Immediately call a POISON CENTER or doctor. Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt and waistband.

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

- Symptoms/injuries : Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Headache. Nausea.

4.3. Indication of any immediate medical attention and special treatment needed

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

General advice for dithiocarbamates. Biomonitoring possible at chronic exposure: determination of TTCA in the urine at the end of the workday/week.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray
Dry chemical powder
Alcohol resistant foam
Carbon dioxide (CO₂).

Unsuitable extinguishing media : Water spray jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Thermal decomposition can lead to release of irritating and toxic gases and vapors.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.
Fight fire from safe distance and protected location.
Do not breathe fumes
Cool closed containers exposed to fire with water spray
If possible, take the containers out of dangerous zone.
Contain fire-fighting water with dikes or absorbents to prevent migration and entry into sewers, streams or groundwater.

Protection during firefighting : Wear suitable protective clothing, gloves, eye/face protection and respiratory protection
Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Protective equipment : Wear suitable protective clothing, gloves and eye/ face protection.

Emergency procedures : Evacuate area.
Ensure adequate ventilation.
Avoid direct contact with the substance.
Contain any spills with dikes or absorbents to prevent migration and entry into sewers, streams or groundwater.

6.2. Environmental precautions

Prevent entry to sewers and public waters.
Notify the authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.
Once absorbed collect spilled material with shovels, buckets and place in closed containers and label properly.
Remove as chemical waste, according to national or local legislation.
In the event of major spillage: contact an expert.

6.4. Reference to other sections

Reference to other sections (8, 13).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Read label before use.
- Avoid contact with eyes, skin, nose and mouth.
- Wear suitable protective clothing, gloves and eye/face protection.
- Opened containers must be carefully closed and kept upright to avoid leakage.
- Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace.
- Contaminated work clothing should not be allowed out of the workplace.
- Do not eat, drink or smoke when using this product.
- Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Provide adequate ventilation.
- Storage conditions : Prevent unauthorised access.
- Keep locked up and out of the reach of children.
- Keep in original containers, tightly closed.
- Keep away from food, drink and animal feedingstuffs.
- Protect against frost.
- Keep away from heat and direct sunlight.
- Incompatible products : Acids, metals.
- Storage temperature : < 35 °C
- Packaging materials : Use original packaging.
- Packaging must not be reused.

7.3. Specific end use(s)

Soil disinfectant for agricultural use. Refer to the label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available.

8.2. Exposure controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Hand protection : Wear impervious gloves resistant to chemical. Nitrile rubber.
- Eye protection : Safety goggles or a face shield.
- Skin and body protection : Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.
- Respiratory protection : Wear appropriate respirator for dust / organic vapors.

Hygiene measures	: Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke while handling the product. Clean gloves with soap and water before removing. Wash hands and face with soap and water before eating, drinking smoking and immediately after handling product. Clean equipment, premises and work clothes regularly. Work clothing should remain on the work area and stored separately from street clothes.
Environmental exposure controls	: Discharge into the environment must be avoided. Do not contaminate surface and groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow tint
Odour threshold	: No data available
pH	: 7.5 - 10.5 (45% solution)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable.
Freezing point	: No data available
Boiling point	: 97 - 102 °C
Flash point	: Not applicable.
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not auto-flammable
Vapour pressure at 25 °C	: 0.0575 Pa (99.9%)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.15 - 1.21 g/ml
Solubility	: Miscible. Water: 578.29 g/l
Log Pow	: -2.91
Log Kow	: No data available
Viscosity, kinematic at 20 °C	: 3.54 mm ² /s
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive.
Oxidising properties	: Non.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

See incompatible materials.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

Corrosive to metals.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

Decomposes by reaction with strong acids. Corrosive to metals.

10.6. Hazardous decomposition products

 Contact with acids liberates toxic gas. Avoid subsoil penetration. MITC vapour can be released during processing. Nitrogen oxides (NO_x). Sulphur oxides. Carbon oxides. Carbon disulfide. Hydrogen sulfide (H₂S).

SECTION 11: Toxicological information
11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed. Harmful if inhaled.

Metam 510	
LD50 oral rat	896 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat	2.54 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Specific target organ toxicity : Nasal inner lining. Kidney. Liver. Bladder.

Aspiration hazard : Not classified

Other information : This product is considered to be harmful and contains harmful components.

SECTION 12: Ecological information
12.1. Toxicity

Ecology - general : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Metam 510	
LC50 Fishes	0.1 - 100 mg/l
EC50 Daphnia 1	1 - 10 mg/l
ErC50 Algae	0.56 mg/l

12.2. Persistence and degradability

Metam 510	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Metam 510	
Log Pow	-2.91
Bioaccumulative potential	BCF fish: Low biological accumulation.

12.4. Mobility in soil

Koc = <50

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulative (vPvB).

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste treatment methods : Apply triple washing procedure of the empty container and place the rinse water in the tank or container where the mixture is prepared. Handle empty containers and waste as established by the competent authorities.

Offer surplus and non-recyclable solutions to a licensed disposal company.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 3267

UN-No.(IATA) : 3267

14.2. UN proper shipping name

Proper Shipping Name (ADR) : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (metam sodium)

Transport document description (ADR) : UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (metam sodium), 8, III, (E)

14.3. Transport hazard class(es)

Class (ADR) : 8

Class (IATA) : 8 - Corrosives

Hazard labels (ADR) : 8

**14.4. Packing group**

Packing group (ADR) : III

14.5. Environmental hazards

Dangerous for the environment :



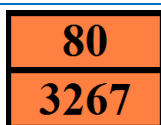
Other information : No supplementary information available.

14.6. Special precautions for user**14.6.1. Overland transport**

Hazard identification number (Kemler No.) : 80

Classification code (ADR) : C7

Orange plates :


14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Source of information: Safety Data Sheet of Metam Sodium of Taminco. 12.01.2015

Full text of H- and EUH-phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Sensitisation — Skin, category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure



Metam 510

Safety Data Sheet

Date of issue: 26/07/2017

Revision date: 26/07/2017

:

Version: 1.5

H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects