

# SAFETY DATA SHEET

## Metam Sodium

304



Version  
1.6  
PRD

Revision Date:  
25.09.2018

SDS Number:  
150000104066  
SDSIL / EN / 0331

Date of last issue: 07.06.2018  
Date of first issue: 07.09.2016  
J41 / 0038707179 / 0000020964

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Metam Sodium

Product code : P5105301

#### Manufacturer or supplier's details

Company : Taminco BVBA  
A Subsidiary of Eastman Chemical Company

Address : Panterschipstraat 207  
Gent 9000

Emergency telephone number : +(972)-37630639 CHEMTREC: +1-703-527-3887 CCN7321

#### Recommended use of the chemical and restrictions on use

Recommended use : Agrochemical (soil disinfectant)

Restrictions on use : None known.

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### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Skin corrosion/irritation : Sub-category 1B

Skin sensitisation : Category 1

Carcinogenicity : Category 2

Reproductive toxicity : Category 2

Specific target organ toxicity -  
repeated exposure : Category 2

Acute aquatic toxicity : Category 1

Chronic aquatic toxicity : Category 1

Corrosive to metals : Category 1

#### GHS label elements

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Hazard pictograms

:



Signal word

: Danger

Hazard statements

: H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H332 Harmful 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

: **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.  
P312 Call a POISON CENTER/doctor if you feel unwell.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.  
**Storage:**  
P405 Store locked up.  
**Disposal:**

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P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards which do not result in classification

None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
metam sodium	137-42-8	>= 39 - <= 44

### 4. FIRST AID MEASURES

- If inhaled : Move to fresh air.  
If breathing is difficult, give oxygen.  
If not breathing, give artificial respiration.  
Treat symptomatically.  
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and plenty of water.  
Wash off immediately with plenty of water for at least 15 minutes.  
Wash contaminated clothing before re-use.  
In the case of skin irritation or allergic reactions see a physician.
- In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
If easy to do, remove contact lens, if worn.  
Call a physician or poison control centre immediately.
- If swallowed : Seek medical advice.  
Do not induce vomiting without medical advice.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : Health injuries may be delayed.  
Liver disorders  
Kidney disorders  
Rash  
Redness  
Use of alcoholic beverages may enhance toxic effects
- Notes to physician : General advice for dithiocarbamates  
Biomonitoring possible at chronic exposure: determination of TTCA in the urine at the end of the workday/week.  
Bloodtesting for delayed effects: liver tests, kidney function, thyroid function

### 5. FIREFIGHTING MEASURES

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- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
Dry chemical  
Water spray
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.  
Do NOT use water jet.
- Specific hazards during fire-fighting : Thermal decomposition can lead to release of irritating gases and vapours.
- Hazardous combustion products : Nitrogen oxides (NO<sub>x</sub>)  
Carbon oxides  
Sulphur oxides
- Specific extinguishing methods : Do not allow run-off from fire fighting to enter drains or water courses.
- Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

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### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear appropriate personal protective equipment.  
Local authorities should be advised if significant spillages cannot be contained.
- Environmental precautions : Avoid release to the environment.
- Methods and materials for containment and cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.  
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

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### 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Keep product and empty container away from heat and sources of ignition.  
Take precautionary measures against static discharges.
- Advice on safe handling : Avoid inhalation of vapour or mist.  
Do not get on skin or clothing.  
Do not get in eyes.  
Avoid contact with skin, eyes and clothing.  
Do not swallow.  
Ensure adequate ventilation.  
Wash thoroughly after handling.
- Conditions for safe storage : Keep tightly closed.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : 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.  
Ensure adequate ventilation.

#### Personal protective equipment

Respiratory protection : Wear respiratory protection.

Filter type : Filter type ABEK-P

Hand protection

Remarks : Rubber gloves Neoprene gloves The data about break through time/strength of material are standard values! The exact break through time/strength of material has to be obtained from the producer of the protective glove.

Eye protection : Wear safety glasses with side shields (or goggles).  
Face-shield  
Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.

Skin and body protection : Complete suit protecting against chemicals

Protective measures : Remove respiratory and skin/eye protection only after vapours have been cleared from the area.  
Ensure that eye flushing systems and safety showers are located close to the working place.  
Use personal protective equipment as required.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : light yellow

Odour Threshold : not determined

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pH	:	7.5 - 10.5 Concentration: 510 g/l
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	97 - 102 °C
Flash point	:	Not applicable
Evaporation rate	:	not determined
Flammability (solid, gas)	:	not auto-flammable
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Vapour pressure	:	0.000575 hPa (25 °C)
Relative vapour density	:	not determined
Relative density	:	No data available
Density	:	1.15 - 1.21 g/cm <sup>3</sup>
Solubility(ies) Water solubility	:	578.29 g/l
Partition coefficient: n-octanol/water	:	log Pow: -2.91
Auto-ignition temperature	:	not determined
Decomposition temperature	:	not determined
Viscosity Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	3.54 mm <sup>2</sup> /s ( 20 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

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### 10. STABILITY AND REACTIVITY

Reactivity	:	None reasonably foreseeable.
Chemical stability	:	Stable under normal conditions.

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Possibility of hazardous reactions	:	Corrosive in contact with metals MITC vapour can be released during processing
Conditions to avoid	:	Heat, flames and sparks. Take precautionary measures against static discharges.
Incompatible materials	:	Metals Strong acids and oxidizing agents
Hazardous decomposition products	:	Carbon dioxide (CO <sub>2</sub> ) Nitrogen oxides (NO <sub>x</sub> ) Sulphur oxides MITC vapour can be released during processing

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### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

##### Product:

Acute oral toxicity	:	LD50 Oral (Rat): 896 mg/kg  Remarks: Harmful if swallowed.
Acute inhalation toxicity	:	LC50 (Rat): 2.54 mg/l Exposure time: 4 h  Remarks: Harmful if inhaled.
Acute dermal toxicity	:	LD50 Dermal (Rat): > 2,000 mg/kg  Remarks: No significant adverse effects were reported

##### Components:

##### **metam sodium:**

Acute oral toxicity	:	LD50 (Rat): 896 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 2.54 mg/l Exposure time: 4 h
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg

#### Skin corrosion/irritation

##### Product:

Species	:	Rabbit
Result	:	Corrosive after 3 minutes to 1 hour of exposure
Remarks	:	Causes severe skin burns. May cause an allergic skin reaction.

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### Components:

#### metam sodium:

Species : Rabbit  
Result : Corrosive

### Serious eye damage/eye irritation

#### Product:

Assessment : Corrosive  
Remarks : Causes serious eye damage.

### Respiratory or skin sensitisation

#### Product:

Species : Guinea pig  
Result : Causes sensitisation.

### Components:

#### metam sodium:

Species : Guinea pig  
Result : Causes sensitisation.

### Germ cell mutagenicity

#### Product:

Germ cell mutagenicity - Assessment : Did not show mutagenic effects in animal experiments.

### Components:

#### metam sodium:

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

### Carcinogenicity

#### Product:

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

### Components:

#### metam sodium:

Remarks : Limited evidence of a carcinogenic effect.



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### Reproductive toxicity

#### Product:

Effects on fertility : Remarks: No data available

Reproductive toxicity - Assessment : Possible risk of harm to the unborn child.

### STOT - single exposure

#### Product:

Remarks : No data available

### STOT - repeated exposure

#### Product:

Target Organs : Nasal inner lining, Kidney, Liver, Bladder

### Components:

#### **metam sodium:**

Target Organs : Kidney, Nasal inner lining, Liver, Bladder

### Aspiration toxicity

#### Product:

No aspiration toxicity classification

### Further information

#### Product:

Remarks : None known.

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to fish : LC50 (Fish): 0.10 - 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1 - 10 mg/l  
Exposure time: 48 h

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 0.56 mg/l  
Exposure time: 72 h

Toxicity to microorganisms : IC50 (Bacteria): 4.36 mg/l  
Exposure time: 3 h

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### Components:

#### **metam sodium:**

- Toxicity to fish : LC50 (Fish): 0.10 - 100 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1 - 10 mg/l  
Exposure time: 48 h
- Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 0.56 mg/l  
Exposure time: 72 h
- Toxicity to microorganisms : IC50 (Bacteria): 4.36 mg/l  
Exposure time: 3 h

### **Persistence and degradability**

#### Product:

- Biodegradability : Remarks: Readily biodegradable

### **Bioaccumulative potential**

#### Product:

- Bioaccumulation : Remarks: Bioaccumulation is unlikely.

### **Mobility in soil**

#### Product:

- Distribution among environmental compartments : Koc: < 50

### **Other adverse effects**

No data available

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## 13. DISPOSAL CONSIDERATIONS

### **Disposal methods**

- Waste from residues : Dispose of in accordance with local regulations.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## 14. TRANSPORT INFORMATION

### **International Regulations**

#### **IATA-DGR**

- UN/ID No. : UN 3267

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Proper shipping name : Corrosive liquid, basic, organic, n.o.s.  
Class : 8  
Packing group : II  
Labels : Corrosive  
Packing instruction (cargo aircraft) : 855  
Packing instruction (passenger aircraft) : 851

### IMDG-Code

UN number : UN 3267  
Proper shipping name : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

Class : 8  
Packing group : II  
Labels : 8  
EmS Code : F-A, S-B  
Marine pollutant : yes

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

Not applicable for product as supplied.

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 15. REGULATORY INFORMATION

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

#### Other international regulations

#### The components of this product are reported in the following inventories:

CH INV : On the inventory, or in compliance with the inventory  
DSL : On the inventory, or in compliance with the inventory  
AICS : On the inventory, or in compliance with the inventory  
NZIoC : On the inventory, or in compliance with the inventory  
ENCS : On the inventory, or in compliance with the inventory  
KECI : Not listed  
PICCS : On the inventory, or in compliance with the inventory  
IECSC : On the inventory, or in compliance with the inventory  
TCSI : On the inventory, or in compliance with the inventory

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TSCA : Not On TSCA Inventory

### 16. OTHER INFORMATION

#### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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