1 Identification

- Product identifier
- Trade name: Metham Sodium
- Part number: PST-1505
- CAS Number: 137-42-8
- EC number: 205-293-0
- Index number: 006-013-00-8
- Application of the substance / the mixture: Reagents and Standards for Analytical Chemical Laboratory Use

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS06 Skull and crossbones
    - Acute Tox. 3 H311 Toxic in contact with skin.
  - GHS05 Corrosion
    - Skin Corr. 1B H314 Causes severe skin burns and eye damage.
  - GHS07
    - Acute Tox. 4 H302 Harmful if swallowed.
    - Skin Sens. 1 H317 May cause an allergic skin reaction.

- Label elements
  - GHS label elements: The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms
    - GHS05
    - GHS06
    - GHS07

- Signal word: Danger
Trade name: Metham Sodium

- **Hazard-determining components of labeling:**
  - metam-sodium

- **Hazard statements**
  - Harmful if swallowed.
  - Toxic in contact with skin.
  - Causes severe skin burns and eye damage.
  - May cause an allergic skin reaction.

- **Precautionary statements**
  - Do not breathe dusts or mists.
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - Contaminated work clothing must not be allowed out of the workplace.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - If swallowed: Call a poison center/doctor if you feel unwell.
  - If swallowed: Rinse mouth. Do NOT induce vomiting.
  - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - If INHALED: Remove person to fresh air and keep comfortable for breathing.
  - 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.
  - Specific treatment (see on this label).
  - Take off immediately all contaminated clothing and wash it before reuse.
  - If skin irritation or rash occurs: Get medical advice/attention.
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - NFPA ratings (scale 0 - 4)
    - Health = 3
    - Fire = 0
    - Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    - HEALTH 3 Health = 3
    - FIRE 0 Fire = 0
    - REACTIVITY 0 Reactivity = 0

- **Other hazards**
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

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**3 Composition/information on ingredients**

- **Chemical characterization: Substances**
- **CAS No. Description**
  - 137-42-8 metam-sodium
- **Identification number(s)**
- **EC number:** 205-293-0
*4 First-aid measures*

- **Description of first aid measures**
  
  **General information:**
  Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. In case of irregular breathing or respiratory arrest provide artificial respiration.

  **After inhalation:**
  Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation.

  **After skin contact:**
  Immediately wash with water and soap and rinse thoroughly.

  **After eye contact:**
  Rinse opened eye for several minutes under running water. Then consult a doctor.

  **After swallowing:**
  Immediately call a doctor. Drink copious amounts of water and provide fresh air. Immediately call a doctor.

  **Information for doctor:**
  **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  **Indication of any immediate medical attention and special treatment needed**
  No further relevant information available.

5 **Fire-fighting measures**

- **Extinguishing media**
  
  **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

  **Special hazards arising from the substance or mixture**
  During heating or in case of fire poisonous gases are produced.

  **Advice for firefighters**
  **Protective equipment:** Mouth respiratory protective device.

6 **Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**
  Mount respiratory protective device. Wear protective equipment. Keep unprotected persons away.

  **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

  **Methods and material for containment and cleaning up:**
  Use neutralizing agent. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

  **Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.
Trade name: Metham Sodium

7 Handling and storage

- Handling:
  - Precautions for safe handling
    Thorough dedusting.
    Ensure good ventilation/exhaustion at the workplace.
  - Information about protection against explosions and fires: Keep respiratory protective device available.

- Conditions for safe storage, including any incompatibilities
  - Storage:
    - Requirements to be met by storerooms and receptacles: No special requirements.
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions: Keep receptacle tightly sealed.
  - Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Control parameters
  - Components with limit values that require monitoring at the workplace:
    The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
    The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
    At this time, the remaining constituent has no known exposure limits.
    At this time, the other constituents have no known exposure limits.
  - Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
  - Personal protective equipment:
  - General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Store protective clothing separately.
    Avoid contact with the eyes and skin.

- Breathing equipment:
  When used as intended with Agilent instruments, the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.
  Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device/equipment with appropriate organic or acid gas cartridge.
48.1.26

- **Protection of hands:**
  Although not recommended for constant contact with the chemicals or for clean-up, nitrile gloves 11-13 mil thickness are recommended for normal use. The breakthrough time is 1 hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15 mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

- **Material of gloves**
  For normal use: nitrile rubber, 11-13 mil thickness
  For direct contact with the chemical: butyl rubber, 12-15 mil thickness
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**
  For normal use: nitrile rubber: 1 hour
  For direct contact with the chemical: butyl rubber: >4 hours

- **Eye protection:**
  Tightly sealed goggles

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  **General Information**
  **Appearance:**
  - Form: Solid
  - Color: Not determined.
  - Odor: Characteristic
  - Odor threshold: Not determined.

- **pH-value:**
  Not applicable.

- **Change in condition**
  **Melting point/Melting range:** Undetermined.
  **Boiling point/Boiling range:** Undetermined.

- **Flash point:**
  Not applicable.

- **Flammability (solid, gaseous):** Product is not flammable.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.

- **Vapor pressure:** Not applicable.

- **Density:** Not determined.
- **Relative density**
- **Vapor density**
  Not applicable.
Trade name: Metham Sodium

- Evaporation rate: Not applicable.

- Solubility in / Miscibility with Water: Insoluble.

- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.
  - VOC content: 0.00 %
  - 0.0 g/l / 0.00 lb/gal

  Solids content: 100.0 %

- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability: No decomposition if used according to specifications.
- Thermal decomposition / conditions to be avoided: No dangerous reactions known.
- Possibility of hazardous reactions: No further relevant information available.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects:
  - Acute toxicity:

    - LD/LC50 values that are relevant for classification:
      - ATE (Acute Toxicity Estimate)
      - Oral LD50 450 mg/kg (rat)
      - Dermal LD50 800 mg/kg (rabbit)

    * 137-42-8 metam-sodium
      - Oral LD50 450 mg/kg (rat)
      - Dermal LD50 800 mg/kg (rabbit)

- Primary irritant effect:
  - on the skin: Caustic effect on skin and mucous membranes.
  - on the eye: Strong caustic effect.
  - Sensitization: Sensitization possible through skin contact.
  - Additional toxicological information:
    - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - Substance is not listed.
12 Ecological information

- **Toxicity**
  - **Aquatic toxicity**: No further relevant information available.
  - **Persistence and degradability**: No further relevant information available.
  - **Behavior in environmental systems**:
    - **Bioaccumulative potential**: No further relevant information available.
    - **Mobility in soil**: No further relevant information available.
  - **Additional ecological information**:
    - **General notes**:
      Water hazard class 2 (Self-assessment): hazardous for water
      Do not allow product to reach ground water, water course or sewage system.
      Must not reach bodies of water or drainage ditch undiluted or unneutralized.
      Danger to drinking water if even small quantities leak into the ground.
  - **Results of PBT and vPvB assessment**
    - **PBT**: Not applicable.
    - **vPvB**: Not applicable.
    - **Other adverse effects**: No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings**:
- **Recommendation**: Disposal must be made according to official regulations.

*14 Transport information*

- **UN-Number**
- **DOT, IMDG, IATA**
  - UN2811
- **UN proper shipping name**
  - DOT
  - IMDG
  - IATA
  - Toxic solids, organic, n.o.s. (metam-sodium)
  - TOXIC SOLID, ORGANIC, N.O.S. (metam-sodium), MARINE POLLUTANT
  - TOXIC SOLID, ORGANIC, N.O.S. (metam-sodium)
**Trade name:** Metham Sodium

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<thead>
<tr>
<th>Transport hazard class(es)</th>
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<td>DOT, IMDG</td>
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### Class
- 6.1 Toxic substances

### Label
- 6.1

### IATA
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<th>6.1 Toxic substances</th>
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### Packing group
- DOT, IMDG, IATA
- III

### Environmental hazards:
- Marine pollutant:
  - Yes (DOT)
  - Symbol (fish and tree)

### Special precautions for user
- Warning: Toxic substances
- Danger code (Kemler): 60
- EMS Number: F-A,S-A
- Stowage Category: A
- Stowage Code: SW2 Clear of living quarters.

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
- Not applicable.

### Transport/Additional information:
- DOT
  - Quantity limitations:
    - On passenger aircraft/rail: 100 kg
    - On cargo aircraft only: 200 kg
  - Remarks:
    - Special marking with the symbol (fish and tree).

- IMDG
  - Limited quantities (LQ): 5 kg
  - Excepted quantities (EQ): Code: E1
    - Maximum net quantity per inner packaging: 30 g
    - Maximum net quantity per outer packaging: 1000 g

### UN "Model Regulation":
- UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (METAM-SODIUM), 6.1, III, ENVIRONMENTALLY HAZARDOUS
* 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
  - Section 355 (extremely hazardous substances):
    Substance is not listed.
  - Section 313 (Specific toxic chemical listings):
    Substance is listed.
  - TSCA (Toxic Substances Control Act):
    Substance is not listed.
  - TSCA new (21st Century Act): (Substances not listed)
    137-42-8 metam-sodium
  - Proposition 65
    - Chemicals known to cause cancer:
      Substance is listed.
    - Chemicals known to cause reproductive toxicity for females:
      Substance is not listed.
    - Chemicals known to cause reproductive toxicity for males:
      Substance is not listed.
    - Chemicals known to cause developmental toxicity:
      Substance is listed.

- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    Substance is not listed.
  - TLV (Threshold Limit Value established by ACGIH)
    Substance is not listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    Substance is not listed.
  - Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

* 16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

- Department issuing SDS: Document Control / Regulatory
- Contact: regulatory@ultrasci.com
- Date of preparation / last revision 03/24/2019 / 2
- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
Trade name: Metham Sodium

NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Sens. 1: Skin sensitisation – Category 1
* Data compared to the previous version altered.