

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Name	Metam CLR 42%
Use of the Substance/Preparation	Agrochemical (soil disinfectant)
EPA Reg No	45728-16
Company/Undertaking Identification	Taminco US Inc. Two Windsor Plaza, Suite 411 7540 Windsor Drive Allentown, PA 18195 (800) 223-3258
Emergency telephone number	In case of emergency call CHEMTREC 1-800-424-9300 703-527-3887 (International Calls), 02-8014-4880 (Australia local calls)

2. HAZARDS IDENTIFICATION

Appearance	yellow to brown liquid, amine-like odor
Emergency Overview	<ul style="list-style-type: none"> • DANGER! • POISON • Fatal in contact with skin • Corrosive • Causes skin burns • May cause irreversible eye damage • May be fatal if inhaled • May be fatal if swallowed • Repeated or prolonged skin contact may cause allergic reactions with susceptible persons • Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Principal Routes of Exposure	<ul style="list-style-type: none"> • Inhalation • Skin contact • Eye contact

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Metam-sodium	137-42-8	27-42

4. FIRST AID MEASURES

Ingestion

- Call a physician or Poison Control Centre immediately
- Rinse mouth
- Give small amounts of water to drink
- Do not induce vomiting without medical advice
- Never give anything by mouth to an unconscious person
- Take the container, label, or product name and Pest Control Registration Number with you when seeking medical attention.

Skin Contact

- Immediately flush skin with running water for 20 minutes or until no traces remain. Wash with soap and water. Remove contaminated clothing immediately.
- Wash contaminated clothing before re-use
- Call a physician or Poison Control Centre immediately

Eye Contact

- Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 20 minutes.
- Call a physician or Poison Control Centre immediately

Inhalation

- Move to fresh air
- If breathing is difficult, give oxygen
- If not breathing, give artificial respiration
- Call a physician or Poison Control Centre immediately

Notes to Physician

- Potential for aspiration if swallowed

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

- Water
- carbon dioxide (CO₂)
- dry chemical
- foam

Specific methods

- Evacuate area and fight fire from a safe distance
- Keep containers and surroundings cool with water spray
- Wash/Decontaminate removed clothing before reuse
- Dike and collect water used to fight fire
- Water runoff can cause environmental damage
- Do not flush into surface water or sanitary sewer system

Special protective equipment for fire-fighters

- Firefighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent)

Specific hazards

- Heating or fire can release toxic gas
- Heating may cause a fire or explosion
- Decomposes after dilution with water to form hydrogen sulfide which is highly flammable and toxic.
- Toxic to fish
- Toxic to wildlife and domestic animals

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

- Wear suitable protective equipment
- Evacuate personnel to safe areas
- Keep people away from and upwind of spill/leak

Environmental Precautions

- Prevent product from entering drains
- Do not flush into surface water or sanitary sewer system
- Report spills as required by local and federal regulations.
- Toxic to fish
- Toxic to wildlife and domestic animals
- Read the product label for additional information.

Methods for Clean-up

- Prevent further leakage or spillage if safe to do so
- Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13)
- Read the product label for additional information.

7. HANDLING AND STORAGE

Storage

Technical measures/Precautions

- Protect containers from physical damage
- Keep in a dry, cool and well-ventilated place
- Store in original container
- Keep container tightly closed
- Keep away from food, drink and animal feedingstuffs
- Use spark-proof tools and explosion-proof equipment
- Do not use on, in or around the home
- Keep away from children
- Do not re-use empty containers
- Observe label precautions

Incompatible products

- Oxidizing agents
- water
- acids
- heavy metal salts
- metals

Handling

Technical measures/Precautions

- Wear personal protective equipment
- Ensure that eyewash stations and safety showers are close to the workstation location
- Handle in accordance with good industrial hygiene and safety practice
- When using, do not eat, drink or smoke
- It is a violation of Federal Law to use this product in a manner that is inconsistent with its labeling.
- Toxic to fish
- Toxic to wildlife and domestic animals

Safe handling advice

- Avoid contact with skin, eyes and clothing
- Do not breathe vapors or spray mist
- Use only in well-ventilated areas
- Remove and wash contaminated clothing before re-use
- Wash hands and face before breaks and immediately after handling the product
- Empty containers retain product residue and may be hazardous
- Re-open used containers with caution
- Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR 170. It contains requirements for training, decontamination, notification and emergency assistance.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL
Metam-sodium	Not listed	None Established

Respiratory Protection

- In the case of dust or aerosol formation use respirator with an approved filter
- The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace
- Handle in accordance with good industrial hygiene and safety practice
- For additional information on the use and care of respiratory protection see product label.

Engineering measures

- Ensure adequate ventilation, especially in confined areas
- For additional information on ventilation requirements see product label or consult the Worker Protection Standard for agricultural pesticides (40 CFR 170.240(d)).

Personal Protective Equipment**Eye Protection**

- Tightly fitting safety goggles

Hand protection

- Impervious gloves
- Request information on glove permeation properties from the glove supplier

Skin Protection

- Wear suitable protective equipment
- Choose body protection according to the amount and concentration of the dangerous substance at the work place
- For information on the use and care of personal protective equipment see product label.

Other protective equipment

- Ensure that eyewash stations and safety showers are close to the workstation location

Environmental exposure controls

- Prevent product from entering drains
- Do not contaminate surface water

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Physical State	Liquid
Color	yellow tint
Odor	Perceptible :

Important Health Safety and Environmental Information

Boiling Point/Range	97 - 102°C 206 - 215°F
Flash Point	Not applicable
Viscosity	3.54cSt @ 20°C
Vapor Pressure	0.0575Pa @ 25 °C (99.9%)
Relative density	No information available
Partition Coefficient (n-octanol/water)	log Pow -2.91
pH	7.5 - 10.5 (42% solution)
Water solubility	578.29 g/l (99.9%)
Oxidizing Properties	none
Evaporation Rate	Not applicable
Explosion Limits	Not explosive
Explosive Properties	
Melting Point/Range	Not applicable
Density	1.15 - 1.21 g/mL
Flammability	not auto-flammable
Autoignition Temperature	No data available

Specific Gravity

10. STABILITY AND REACTIVITY

Stability	<ul style="list-style-type: none">• Stable
Conditions to Avoid	<ul style="list-style-type: none">• Heat• water• acids• Oxidizing agents• metals• heavy metal salts
Hazardous Decomposition Products	<ul style="list-style-type: none">• methyl isothiocyanate• hydrogen sulfide• MMA• Carbon oxides• nitrogen oxides (NOx)• sulphur oxides• Carbon disulfide
Hazardous Polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Eye Contact	May cause irreversible eye damage.
Skin Contact	May be fatal if absorbed through skin. Causes skin burns. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Inhalation	Inhalation may cause severe mucous membrane and respiratory irritation, shortness of breath and pulmonary edema. May be fatal if inhaled.

Ingestion May be fatal if swallowed. Ingestion may provoke the following symptoms: weakness, diarrhoea, lack of coordination, Neurological disorders, pain, numbness, central nervous system depression.

Chronic Effects May cause damage to organs through prolonged or repeated exposure. Liver. Kidney. Bladder. Nasal Cavities. Use of alcoholic beverages may enhance toxic effects.

Chemical Name	IARC	ACGIH	OSHA	NTP
Metam-sodium	Not Listed	Not Listed	Not Listed	Not Listed

Aggravated Medical Conditions Respiratory disorders. Skin disorders. Kidney disorders. Liver disorders.

Product Information

Information given is based on data on the components and the toxicology of similar products

LD50/oral/rat = 896 mg/kg
 LD50/dermal/rat = > 2000 mg/kg
 LC50/inhalation/4h/rat = 2.54 mg/l
 Eye irritation rabbit eye none
 Skin irritation rabbit skin Corrosive
 Sensitization Causes sensitization on guinea-pigs
 Target Organ Effects Nasal inner lining, Kidney, Liver, Bladder
 Mutagenic Effects Did not show mutagenic effects in animal experiments
 Reproductive toxicity No toxicity to reproduction
 Carcinogenic effects Did not show carcinogenic effects in animal experiments

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish LC50 : 0.10 - 100mg/l
 EC50/48h/daphnia = 1 - 10 mg/l
 EC50/72h/algae = 0.56 mg/l
 Toxicity to bacteria IC50 : 4.36 mg/l (3 h)

Mobility

Koc = <50

Persistence and Degradability

aquatic environment
 According to the results of tests of biodegradability this product is considered as being readily biodegradable

Bioaccumulative Potential

minimum

13. DISPOSAL CONSIDERATIONS

Waste disposal methods	Dispose of in accordance with local regulations
Contaminated Packaging	Empty containers should be taken for local recycling, recovery or waste disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT	
Proper Shipping Name	UN3267, Corrosive liquid, basic, organic, N.O.S., (Metam-Sodium 42% in water), 8, PG II, Marine pollutant
Hazard Class	8
UN-No	UN3267
Packing Group	PG II
Reportable Quantity (RQ)	None
Marine Pollutant	Yes.
Labelling	Corrosive

IMDG/IMO	
Proper Shipping Name	UN3267, Corrosive liquid, basic, organic, N.O.S., (Metam-Sodium 42% in water), 8, PG II, Marine pollutant
Hazard Class	8
UN-No	UN3267
Packing Group	PG II
Marine Pollutant	Yes
Labelling	Corrosive, Marine pollutant

IATA	
UN-No	UN3267
Proper Shipping Name	UN3267, Corrosive liquid, basic, organic, N.O.S., (Metam-Sodium 42% in water), 8, PG II
Hazard Class	8
Packing Group	PG II
Labelling	Corrosive

15. REGULATORY INFORMATION

International Inventories

NOTE: X = Listed

Chemical Name	TSCA	EINECS	DSL	ENCS	MITI	AICS	PICCS	IECSC	KECL	NZIoC
Metam-sodium		205-293-0	X	2-1797		X	X	X		X

OSHA HAZARD CLASSIFICATION: Corrosive, Toxic, Target Organ Effects

SARA 311/312 Hazardous Categorization

Acute Health Hazard, Chronic Health Hazard

SARA TITLE III SECTION 313 INFORMATION:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

NOTE: X = Listed

Chemical Name	de minimus %
Metam-sodium 137-42-8	X

CERCLA Hazardous Substances

This product does not contain any RQs or TPQs under this regulation.

State Right-to-Know

NOTE: X = Listed

Chemical Name	PA	NJ	MA
Metam-sodium 137-42-8	Not Listed	Not Listed	Not Listed

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Metam-sodium 137-42-8 (27-42%)	Listed: November 6, 1998 Carcinogenic. Listed: May 15, 1998 Developmental toxin.

WHMIS Hazard Class

D2A Very toxic materials
E Corrosive material

Canadian Environmental Protection Act

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. OTHER INFORMATION

HMIS	Health 3	Flammability 1	Physical Hazard 0
NFPA	Health 3	Fire 1	Instability 0

Legend: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

Literary Reference

-Taminco Proprietary Studies -IUCALID CD-ROM, 2000 -TOMES on line

Disclaimer: The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet