SAFETY DATA SHEET

According to EC Regulation 1907/2006/EC

Taminizer C

Revision Date *27-Nov-2009*
Revision Number *1*

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

Product Name	Taminizer C
Synonyms	(2-Hydroxyethyl) Trimethylammonium Chloride
Company/Undertaking Identification	Taminco BVBA
Address	Pantserschipstraat 207 9000 GENT BELGIUM
Telephone	(+32) 9 254 14 11
Telefax	(+32) 9 254 14 10
Emergency Telephone Number	(+32) 9 254 10 36
Use of the Substance/Preparation	Feed Additive

2. HAZARDS IDENTIFICATION

Most Important Hazards

- No hazards to be especially mentioned
- Handle in accordance with good industrial hygiene and safety practice
- Risk of dust explosion

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Chemical Name	CAS-No	Weight %	EINECS	Classification
Choline chloride	67-48-1	>96	200-655-4	-

4. FIRST AID MEASURES

General Advice
- If symptoms persist, call a physician
- Show this safety data sheet to the doctor in attendance

Inhalation
- Move to fresh air
- If not breathing, give artificial respiration
- Immediate medical attention is required

Eye Contact
- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
- If symptoms persist, call a physician

Skin Contact
- Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes
- If skin irritation persists, call a physician

Ingestion
- not hazardous

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
- carbon dioxide (CO2)
- water spray
- dry chemical
- foam

Extinguishing media which must not be used for safety reasons
- None

Specific methods
- Evacuate personnel to safe areas
- Do not flush into surface water or sanitary sewer system
- Keep product and empty container away from heat and sources of ignition

Special protective equipment for fire-fighters
- In the event of fire, wear self contained breathing apparatus

Specific hazards
- Heating can release hazardous gases
- Carbon oxides
- Nitrogen oxides (NOx)

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
- Avoid contact with skin, eyes and clothing
- Evacuate personnel to safe areas

Environmental Precautions
- Should not be released into the environment
- Prevent product from entering drains
- Do not flush into surface water or sanitary sewer system

Methods for Clean-up
- Remove immediately adhering matter
- Shovel or sweep up
- Take up mechanically and collect in suitable container for disposal
- Wipe up with absorbent material (e.g. cloth, fleece)
- Dampen dust and place it in a properly closed receptacle and dispose of it safely
- Contaminated equipment (brushes, rags) must be cleaned immediately with water

7. HANDLING AND STORAGE

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Storage

Technical measures/Precautions
- In accordance with local and national regulations
- Keep container tightly closed
- hygroscopic

Incompatible products
- No information available

Specific use(s)
- Dispose of as special waste in compliance with local and national regulations
- Keep at temperatures above -15°C

Handling

Technical measures/Precautions
- In accordance with local and national regulations
- Ensure adequate ventilation

Safe Handling Advice
- Handle in accordance with good industrial hygiene and safety practice

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Engineering Controls
- Local exhaust

Exposure limits

Chemical Name	GOEL	ACGIH TLV
Choline chloride	Not listed	Not listed

Personal Protective Equipment

Eye/face Protection
- Tightly fitting safety goggles

Hand Protection
- Impervious gloves

Respiratory Protection
- Effective dust mask
- Suitable mask with particle filter P3 (European Norm 143)

Skin Protection
- Wear suitable protective equipment
- Choose body protection according to the amount and concentration of the dangerous substance at the work place
- Apron
- Boots

Environmental exposure controls
- Prevent product from entering drains
- Do not contaminate surface water
- Avoid subsoil penetration

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Physical State Solid

Color	White
Odor	percept

Important Health Safety and Environmental Information

Boiling Point/Range	Not applicable
Flash Point	No data available
Viscosity	Not applicable
Vapor Pressure	Not applicable
Vapor Density	No information available
Partition Coefficient (n-octanol/water)	(75 % solution) log Pow -3,77
pH	5 - 8 (75% solution)
Water solubility	Miscible
Oxidizing Properties	Not applicable
Evaporation Rate	Not applicable
Explosion Limits	No information available
Melting Point/Range	247°C
Density	0.55-0.60 g/mL (20 °C)
Flammability	no data available
Autoignition Temperature	No data available

10. STABILITY AND REACTIVITY

Conditions to Avoid

- Heat
- Avoid moisture
- hygroscopic

Materials to avoid

- No materials to be especially mentioned

Hazardous Decomposition Products

- None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

Caution - substance not yet tested completely

LD50/oral/rat =	3400 mg/kg
LC50 Inhalation	An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration
Eye irritation	No eye irritation, rabbits
Skin irritation	Non-irritating to the skin, rabbits
Sensitization	No information available
Mutagenic Effects	Did not show mutagenic effects in animal experiments
Reproductive toxicity	In animal testing, risk of impaired fertility was shown only after administration of very high doses of this substance
Carcinogenic effects	No information available

Human experience

Human experience	Substance may cause slight skin irritation

12. ECOLOGICAL INFORMATION

Ecotoxicity

LC50/96h/goldfish =	> 1,000 mg/l(75% solution)
EC50/48h/daphnia =	> 500 mg/l
EC50/72h/algae =	> 500 mg/l
Toxicity to bacteria	IC50 : 133 mg/l

Mobility

No information available

Persistence/Degradability

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

Bioaccumulative Potential

minimum

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products

- Dispose of in accordance with local regulations
- Waste codes should be assigned by the user based on the application for which the product was used

Contaminated Packaging

- Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

Road transport

not regulated

Sea transport

not regulated

Air transport

not regulated

15. REGULATORY INFORMATION

Symbol(s)

- Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 99/45/EC

R -phrase(s)

- /

S -phrase(s)

- /

International Inventories

Chemical Name	TSCA	EINECS	DSL	ENCS	AICS
Choline chloride	X	200-655-4	DSL - Listed	(2)-341 (9)-1994	Listed.

16. OTHER INFORMATION

Literary Reference

-IUCLID CD-ROM, 2000
-TOMES on line

Further information for the safety data sheet

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 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.