



SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier**
Trade Name: Anodamine CBTFG
Alternative Names: Surface-active amino blend with balanced ratio of non-hazardous, non-eutrophication polypeptide dispersant to ensure homogeneous formulation
- 1.2 Relevant identified uses of the substance or mixture and uses advised against.**
Industrial uses: Cooling tower metal passivation corrosion inhibitor
- 1.3 Details of the supplier of the safety data sheet**
Supplier
Anodamine Inc
Street address 7800 Bronco Lane
Postcode and post office Lago Vista, Texas 78645 USA
Telephone + 1 (512) 244 2318
Email info@anodamine.com, webpage: www.anodamine.com
Contact details of person responsible for SDS
Technical Support Services contact (info@anodamine.com)
Telephone: +1 (512) 244-2318
- 1.4 Emergency telephone number**
For USA: Chemtrec: 1-800-424-9300
For Canada: CanuTec: 613-996-6666
Email: ers@chemtelinc.com
Hours of operation: 24 hrs
Language of phone service: English

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**
GHS-US Classification: Not classified
Additional Information: For full text of Hazard Statements, See Section 16
- 2.2 Label elements**
GHS-US labeling:
Hazard Pictogram: No hazard pictograms required
Signal Word: No signal word required
Hazard Statements: No hazard phrases required
Precautionary Statements: Response: None
Storage: None
Disposal: None
Supplemental Hazard Info: None
- 2.3 Other hazards**
The substance does not fulfil the PBT criteria (not PBT) nor the vPvB criteria (not vPvB).
- 2.4 Unknown acute toxicity (GHS-US)**
None as per REACH Regulations 2018

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.2 Mixtures**
Chemical Characterization: Surface active amino compounds
- 3.3 Other information**
No hazardous ingredients present according to REACH and OSHA-GHS 2012.

SECTION 4: FIRST AID MEASURES

- 4.1 Description of first aid measures**
Handling and industrial use of this product possesses little to no safety risk to either personnel or the environment.
- 4.1.2 Inhalation**
No effects or symptoms are expected when handling the product. If irritation occurs, remove to fresh air and get medical



attention. No respiratory PPE is required.

4.1.3 Skin contact

No effects or symptoms are expected when handling the product. Remove contaminated clothing and shoes and immediately wash affected area with plenty of soap and rinse area with large amounts of water. Get medical aid if required.

4.1.4 Eye contact

Remove any contact lenses and continue flushing eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid if necessary. Do NOT allow victim to rub or keep eyes closed. Safety glasses should be worn.

4.1.5 Ingestion

Do NOT induce vomiting. If victim is conscious and alert, wash out mouth with water, give several glasses of water. Get medical aid immediately if necessary.

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 for more information on health effects and symptoms.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water fog or spray, dry chemical foam or carbon dioxide.

Unsuitable Extinguishing media

None known

5.2 Special hazards arising from the substance or mixture

None known

Under fire conditions it may produce irritating fumes and/or gases if heated to 600 °C (1112 °F) or above.

Hazardous Combustion Product: Thermal decomposition products may release gases including carbon dioxides (CO₂).

5.3 Advice for firefighters

Wear self-contained breathing apparatus and acid resistant clothing

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use of personal protection is always recommended as good chemical handling practice would dictate. Evacuate the spill area safely to permit authorized personnel to handle the spill. Emergency responders must wear the proper personal protective equipment (and have appropriate fire-suppression equipment) suitable for the situation to which they respond.

6.2 Environmental precautions

Avoid release to the environment. Collect leaking substance with suitable containers. Do not allow large volume losses to enter into drain or surface waters. Collect contaminated material in containers. Dispose of contaminated material and its container as waste according to local regulations.

Water Spill: The material will not cause any adverse environmental impact if it reaches waterways however avoid release into waterways. The product is considered non-hazardous to aquatic environment.

Land spill: None

Air Spill: None known

6.3 Methods and materials for containment and cleaning up

Contain large spills with containment walls and transfer the material to appropriate containers for reclamation or disposal. Collect by sweep, scoop or vacuum and remove. Flush spill area with water. The spill area may be slippery. Soak up liquid residue with suitable absorbent such as clay or sawdusts.

6.4 Reference to other sections

Refer to section 13 for disposal consideration

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures:

Avoid unnecessary repeated contact with skin and eyes. Do not open the containers until ready for use. Close the containers properly.

Handle in accordance with good industrial hygiene and safety practices as mentioned in Section 8.2. These practices include using appropriate personal protection, avoiding unnecessary exposure and removal of material from eyes, skin and clothing. Do not eat, drink or smoke when handling this product.



Observe all recommended safety precautions until container is cleaned, reconditioned or destroyed. The reuse of this material's container for non-industrial purposes is prohibited and any reuse must be in consideration of the data provided in this material safety data sheet.

Advice on general occupational hygiene:

Keep personal protective equipment in a clean place, away from the work area. Use clean and correctly maintained personal protective equipment. Always wash your hands after handling the product.

Do NOT eat or drink in the workplace.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Take all necessary precautions to avoid the accidental release of the product outside due to the rupture of containers or transfer systems. Ensure there is a suitable retention system. Storage facilities should be dry and clean.

Packing Material:

The product is compatible with most common storage materials. Suitable packing and storage materials include: SS 316 (only for transportation purpose), original containers or metal containers with glass, PVC, PP, PE or GRP lining

Unsuitable packing and storage material: None

Requirements for storage rooms and vessels: Storage should be done in original PE drums or original IBC Containers.

Store the containers in cool and dry place at ambient temperature of > 0°C / 32°F (freezing protection) or < 43°C / 110°F to typically ensure a useable shelf life of 12-18 months.

Even after freezing, thawing may allow re-use of the product without limitations.

Advice on common storage:

No special restriction on storage with other products

Further information on storage conditions: Shelf life: 12-18 months, under roof, out of direct sunlight <100°F, Storage Class 12

7.3 Specific end use(s)

Refer to Section 1.2

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

No data available.

8.2 Exposure controls

Appropriate engineering controls

No specific additional engineering controls are required. Provide good natural or artificial ventilation is acceptable.

Organizational protection measures:

Environmental, health and safety guidelines or written instructions on the standard operating procedure (SOP) are utilized.

Personnel are trained in environment, health and safety issues, i.e. in safe handling of chemicals and good housekeeping.

Good hygiene measures practiced.

8.3 Individual protection measures

Respiratory protection

No respiratory protection required under normal conditions of use.

Skin/Hand protection

Wear gloves of suitable material. Wear suitable protective clothing including aprons, boots. Wash thoroughly after handling.

Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice.

Eye/face protection

Use safety glasses or chemical goggles. Have eye wash facilities immediately available at any location where eye contact can occur.

8.4 Environmental exposure controls

Avoid direct discharge into drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Important Health Safety and Environmental Information

Appearance	Liquid
Color	Deep Blue
Odor	Limited
Odor threshold	Not available
pH	~3.5 – 4.5 of 20% solution at 25°C



Safety Data Sheet compliant with OSHA Hazardous Communication Standard, 2012 (OSHA-HCS)
In accordance with Regulation (EC) No. 1272/2008 (CLP) this substance has not been classified as hazardous.

Freezing point/range	< 37°F
Initial boiling point and boiling range	>100 °C (Similar to water)
Flash point	Not applicable; (Non-flammable aqueous based solution)
Evaporation rate	Not determined
Flammability (solid, gas)	Non-flammable or combustible
Explosive properties	Not applicable
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor pressure	Same as water
Vapor density	Not available
Specific gravity@25C	0.99
Solubility(ies)	Miscible in water
Partition coefficient: n-octanol/water	Log Kow (Log Pow): 0.3 at 77°F (OECD 117, GLP)
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

Explosive properties: There are no chemical groups associated with explosive properties present in this substance.

Oxidizing properties: Substance does not contain functional groups with oxidizing properties.

9.2 Other information: Please refer to technical datasheet

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity:** None
Hazardous polymerization: None
- 10.2 Chemical stability**
Stable under recommended storage and handling conditions.
- 10.3 Possibility of hazardous reactions**
Hazardous polymerization is not expected to occur under normal temperatures and pressures.
- 10.4 Conditions to avoid:** None
- 10.5 Incompatible materials**
Acidic and strong oxidizers.
- 10.6 Hazardous decomposition products**
No information is available

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects**
- 11.2 Acute oral toxicity:**
Species: rat
Route of administration: oral
LD50: >5000 mg/kg
Not classified for acute oral toxicity as per OSHA-GHS regulation
- 11.3 Acute Inhalation toxicity:**
No study available, not expected route of human exposure
- 11.4 Acute dermal toxicity:**
Species: rat
Route of administration: Dermal
LD50: >5000 mg/kg
Not classified for acute dermal toxicity as per OSHA-GHS regulation
- 11.5 Irritation and corrosion**
Species: Rabbit



Safety Data Sheet compliant with OSHA Hazardous Communication Standard, 2012 (OSHA-HCS)
In accordance with Regulation (EC) No. 1272/2008 (CLP) this substance has not been classified as hazardous.

Exposure: 4 hour
Result: Not irritating
Not classified for skin irritation as per OSHA-GHS regulation

11.6 Sensitization

Species: Guinea Pig
Result: Not sensitizing

Repeated dose toxicity:

No classification regarding repeated dose toxicity is required.

Germ cell Mutagenicity:

Negative results obtained in Ames, CHO HGPRT forward mutation and micronucleus tests.

Carcinogenicity:

No classification regarding carcinogenicity is required.

Reproductive toxicity:

No classification regarding reproductive toxicity is required.

11.7 STOT-single exposure

No classification regarding STOT-single exposure is required.

11.8 STOT-repeated exposure

No classification regarding STOT-repeated exposure is required.

11.9 Aspiration hazard

No classification regarding aspiration hazard is required.

11.10 Other information on acute toxicity

No further information available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity on Fish:

Species: Pimephales promelas
Duration: 96 h
LC50: >100mg/l

Toxicity on Invertebrates:

Species: Daphnia magna
Duration: 48 h
EC50: >100 mg/l

Toxicity on Algae:

Species: Algae
Duration: 72 h
EC50: >100 mg/l
(Data extrapolated from similar products or equivalent analogues)

12.1 Persistence and degradability

Test Method: OECD 301D (Ready Biodegradability: Closed Bottle Test) 28 d
Degree of Removal: 90%

12.2 Bio accumulative potential

No data available

12.3 Mobility in soil

No data available

12.4 Results of PBT and vPvB assessment

This substance is neither fulfilling the criteria for persistent, bio accumulative and toxic substances (PBT substances), nor the criteria for very persistent and very bio accumulative substances (vPvB-substances).

12.5 Other adverse effects

No further information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

All local and national regulations should be followed. Consult regulatory officials for disposal requirement. For small quantities



Safety Data Sheet compliant with OSHA Hazardous Communication Standard, 2012 (OSHA-HCS)
In accordance with Regulation (EC) No. 1272/2008 (CLP) this substance has not been classified as hazardous.

flush away with plenty of water. For large quantities send to special waste disposal system and burn in proper incinerator. This product should not be dumped in public storage and sewers / waterways. This material when discarded is not a hazardous waste.

13.2 **US EPA RCRA Status:** This material when discarded is not a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261.

13.3 **Disposal considerations:** Incineration

SECTION 14: TRANSPORT INFORMATION

14.1 The Product does not meet for classification as dangerous goods according to local or international transport regulations. The product is classified as not dangerous goods.

14.2 **UN number** not applicable.

14.3 **UN proper shipping name** not applicable.

14.4 **Transport hazard class(es)** not applicable.

14.5 **Packing group** not applicable.

14.6 **Environmental hazards:** The substance is not classified as hazardous for the environment.

14.7 **Special precautions for Users:** None.

14.8 **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
No data available.

SECTION 15: REGULATORY INFORMATION

Inventory status: All components are on the following inventories:
US TSCA, Canadian DSL, EU EINECS

US Federal Regulations

US TSCA (12b) This product does not contain any chemical substances subjected to the US Toxic Substance Control Act (TSCA) 12 (b) export reporting requirements.

Product is compliance with TSCA regulation.

SARA Hazard Notification:
Hazard Categories Under Title III Rules (40 CFR 370) Not applicable

SARA Section 311/312 Not applicable

Hazard Categories
SARA Title III Section 302 None

Extremely Hazardous Substances

SARA Title III Section 313 This product does not contain any chemical with known CAS numbers that exceeds the threshold (De Minimis) reporting levels established SARA Title III, Section 313.
Toxic Chemicals

US EPA CERCLA None

Hazardous Substances (40 CFR 302)

OSHA Process Safety Management, 29 CFR 1910.119 Not applicable

CERCLA Reportable Quantity Not applicable

California proposition 65 To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

Hazardous air pollutants (Clean Air Act) The product does not contain any hazardous air pollutants as listed under section 112 of the Clean Air Act

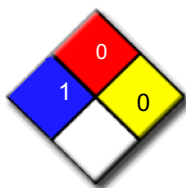
Clean water act (CWA) None listed

The product does not contain any chemicals which are listed as a carcinogen by IARA, NTP & OSHA



Safety Data Sheet compliant with OSHA Hazardous Communication Standard, 2012 (OSHA-HCS)
In accordance with Regulation (EC) No. 1272/2008 (CLP) this substance has not been classified as hazardous.

NFPA Rating



HMIS

Health: 1
Flammability: 0
Physical hazards: 0
Special Hazard: NA

HAZCOM Standard Status

This material is not considered to be hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other International regulations

Canada:

Canadian WHMIS classification	Not regulated or classified
National Pollutants Release Inventory (NPRI)	The product does not contain any components listed on Environment Canada's NPRI
Priority Substances List 1 and Priority Substances List 2 (PSL 1 and PSL2)	The product does not contain any components listed on Environment Canada's PSL1 and PSL2
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Not a hazardous substance or mixture according Regulation (EC) No. 1272/2008
Classification according to Directive 67/548/EEC	Not classified

EU regulations

SVHC or restricted substances list as per REACH regulation

Water Hazard Class (Germany)

WGK: Slightly water endangering

No substances on this list have been intentionally added to the product. Concentration of impurities, if any, is expected to be below 0.1%.

SECTION 16: OTHER INFORMATION

Indication of changes: All sections revised to meet OSHA-GHS requirements
 Procedure used to derive the classification according to GHS Revision No.3 (adopted guidance by OSHA)
 Classification: Not classified
 Judgement: On basis of weight of evidence

16.1 Key or legend to abbreviations and acronyms

CSR = Chemical Safety Report
 DNEL = Derived No Effect Level
 LD50 = Median lethal dose
 PNEC = Predicted No Effect Concentration
 STEL = Short term exposure limit
 TLV = Threshold limits
 TWA = time weighted average
 IATA = International Air Transport Association
 IMDG = International Maritime Dangerous Goods Code
 PBT = Persistent Bioaccumulative Toxic
 vPvB = very Persistent and very Bioaccumulative
 GHS =
 OSHA = Occupational Safety and Health Administration
 IARC = International Agency for Research
 NTP = The National Toxicology program
 TSCA = US Toxic Substance Control Act

16.2 Key literature references and sources for data.

Environmental Properties and safety Assessment of Organic used for Surface-active amino detergent and water treatment Applications----W.E. Gledhill and T.C.J. Feijtel.

Relevant Risk Phrases (in full) Not applicable
Relevant H Statements (in full) Not applicable



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16.5

Date

Friday, July 12, 2019