SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

Product Identifier: Chemstream FA-201HP

Manufactured by: Chemstream, Inc.
511 Railroad Avenue
Homer City, PA 15748

24 Hour Emergency Phone: **(724) 915-8388**

CHEMTREC: **(800) 424-9300**

Recommended use: Water Treatment – Steam Boiler

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Classification: This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200)

Health hazards:

Serious Eye Damage/Irritation:	Category 2
Skin Corrosion/Irritation:	Category 2
Specific Target Organ Toxicity: (repeated exposure)	Category 2
Aquatic Chronic Toxicity:	Category 3

OSHA defined hazards: Not classified.

Label elements:

Signal word: WARNING

Hazard statements:
H315: Causes skin irritation.
H319: Causes severe eye irritation.
H373: May cause damage to organs through prolonged or repeated exposure.
H412: Harmful to aquatic life with long lasting effects.

Prevention:
P264: Wash hands / exposed skin thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P362: Take off contaminated clothing and wash before reuse.
P363: Wash contaminated clothing before reuse. Collect spillage.

Disposal: P501: Dispose of contents/container at a disposal facility in accordance with local regulations.

Hazard(s) not otherwise classified (HNOC): Not classified.

For detailed toxicological information see Section 11.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	% by wt.
Aliphatic Amines	Complex Mixture	100

SECTION 4 – FIRST AID MEASURES

Eye Contact: Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open. If the casualty wears contact lenses, these should be removed before cleaning. Regardless of the initial state and after cleaning, refer the patient to an ophthalmologist with the SDS.

Skin Contact: Remove any soiled or splashed clothing immediately. Watch out for any remaining product between skin and clothing, watches, shoes, etc... Wash immediately the skin thoroughly with plenty of soap and water or a recognized cleaner. If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital. In case of allergic reaction, seek medical advice.

If Inhaled: In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest. If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary. If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

If Swallowed: Do not induce vomiting. Do not give the patient anything orally. In case of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water, administer activated medical charcoal and consult a doctor. Immediately call a doctor and show him the label. Seek medical attention immediately, showing the label. In case of accidental ingestion call a doctor to assess the appropriateness of monitoring or for a hospital treatment, if necessary. Show the label.

IN ALL CASES CONSULT A SPECIALIST PHYSICIAN, especially if there are symptoms.

Most important symptoms/effects, acute and delayed: No data available.

Indication of immediate medical attention and special treatment needed: No data available.

SECTION 5 – FIRE FIGHTING MEASURES

Flammable Properties: Non-flammable product.

Extinguishing Media: All extinguishing agent are available.

Special Firefighting Procedures: Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus. Evacuate area, cool exposed containers with water spray or fog. Use caution when fighting any chemical fire. Prevent fire-fighting wastewater from contaminating the environment.

Unusual Fire and Explosive Hazards: A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke. Thermal decomposition may release/form: Carbon monoxide (CO), carbon dioxide (CO2), NOx, nitrous vapors and NH_3.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Consult the safety measures listed under headings 7 and 8. For non-firefighters: Avoid any contact with the skin and eyes. Wear protective clothing, gloves and protective equipment and eye / face (e.g. visor). If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus. If vapors are present, wear a breathing apparatus. For firefighters: Firefighters will be equipped with suitable personal protective equipment (See section 8).

Spill or Leak Procedures: Prevent any pure product from entering waterways (rivers, soil, ...) and drains. If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures. Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite diatomaceous earth in drums for waste disposal. Flush the area with plenty of water.

Methods and Material for Containment and Cleaning Up
Equipment: Clean preferably with water,
Containment: Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite diatomaceous earth in drums for waste disposal. Flush the area with plenty of water.
Do not use solvents.

Review each section of this SDS before responding to a spill or leak of this product. For detailed disposal information see section 13.

SECTION 7 - HANDLING AND STORAGE

Handling: Comply with current legislation on the prevention of occupational risks. Always wash hands after handling. Remove and wash contaminated clothing before reusing. Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly. Keep chemical handling and storage areas clean and tidy.
Fire prevention: Handle in well-ventilated areas. Prevent access by unauthorized personnel.
Recommended equipment and procedures: For personal protection, see section 8. Observe precautions stated on label and industrial safety regulations. Avoid inhaling vapors. Provide vapor extraction at the emission source and general ventilation of the premises.

Prohibited equipment and procedures: No smoking, eating or drinking in areas where the mixture is used.

Do not reuse containers. Empty containers retain product residues and can be hazardous. Follow all SDS precautions when handling empty containers.

Conditions for Safe Storage: Hazardous reactions with strong oxidizing agents, strong acids and organic halogen compounds.
Storage: Keep away from food and drink, including those for animals. Keep the container tightly closed and in a well-ventilated place. Protect from frost (between 5°C and 35°C). However, if product is frozen, it finds all its characteristics after reheating. Provide a retention tank adapted.
Packaging: Always keep in packaging made of an identical material to the original.
Recommended packing: High Density Polyethylene (PEHD), glass.
Unsuitable packaging: Alloys of copper and aluminum.
Shelf-Life: 12 months at 5 - 30°C.

Other Precautions: Eyewash and safety showers are recommended in the immediate work area. Check with your state OSHA to determine the need and maximum distance for stations to be placed in regards to possible chemical exposure.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protective Equipment: Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place, away from the work area. Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

Eye / face protection: Avoid contact with eyes. Before handling, wear safety goggles with protective sides. Prescription glasses are not considered as protection. In the event of high danger, protect the face with a face shield. Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapors. Provide eyewash stations in facilities where the product is handled constantly.

Hand protection: Wear suitable protective gloves in the event of prolonged or repeated skin contact. Before handling, wear safety goggles with protective sides. Wear rubber or PVC (nitrile) gloves. Do not use leather gloves.

Body protection: Avoid skin contact. Wear suitable protective clothing and, in particular, an apron and boots. These items of clothing shall be maintained in good condition and cleaned after use. Work clothing worn by personnel shall be laundered regularly. After contact with the product, all parts of the body that have been soiled must be washed. In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) to prevent skin contact.

Respiratory protection: Avoid breathing vapors. If the ventilation is insufficient, wear appropriate breathing apparatus. When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Respiratory protection is not normally required. However, it may be necessary in areas of high vapor concentration or in areas with little or no ventilation. Always wear NIOSH approved respiratory protective equipment where there may be potential for airborne exposure.

Engineering Controls: Local exhaust or general mechanical ventilation (explosion proof) as required to minimized exposure or to maintain exposure levels per OSHA/ACGIH requirements.

General Work Practices: Eye wash fountains and safety showers in the work place are strongly recommended. Do not eat, drink, or smoke in areas where chemicals are being stored or handled. Wash thoroughly before handling food or beverages.

Occupational Exposure Limits: No ACGIH TLV or OSHA PEL have ben assigned to this mixture.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Milky white liquid
Odor	Amino
Odor Threshold	Not available
pH	8 – 10
Melting / Freezing Point (˚C)	32°F (0°C)

Initial Boiling Point / Range	212˚F (100˚C) estimated
Flash Point (˚C)	>200.0°F (>93.3°C)
Evaporation Rate (Water=1)	Not available
Flammability	Not available
Lower Flammability Limit (%)	Not available
Lower Flammability Limit (%)	Not available
Vapor Pressure (kPa at 20(˚C)	Not available
Vapor Density (Air = 1)	Not available
Relative Density at 25˚C (Specific Gravity of water = 1)	0.98 – 1.02 (8.17 – 8.51 lbs./gal.)
Solubility in Water	Miscible
Octanol / Water Partition Coefficient (log Kow)	Not available
Autoignition Temperature (˚C)	>212°F (>100°C)
Decomposition Temperature (˚C)	Not available
Viscosity (dynamic)	Not available
% Volatile (by volume)	Not available
VOC (%)	Not available
Explosive Properties	No hazards to be specially mentioned.
Oxidizing Properties	Not available
Metal Corrosion Rate	Not available

NOTE: The above represents typical values and should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Protect from freeze (32°F, 0°C)

Materials to Avoid: Strong oxidizing agents, strong acids and organic halogen compounds.

Possibility of Hazardous Reactions: No hazardous reactions to be expected under recommended handling and storage conditions.

Hazardous Decomposition Products: Thermal decomposition may release/form: Carbon monoxide (CO), carbon dioxide (CO_2), NOx, nitrous vapors and NH_3.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity:

Component/Mixture	LD50 Oral	LC50 Inhalation	LD50 Dermal
Aliphatic Amines	25 000 mg/kg (Rat)		

Skin corrosion/irritation
Result: Causes skin irritation.

Serious eye damage/eye irritation
Remarks: Causes serious eye damage.
Respiratory or skin sensitization:
Remarks: May produce an allergic reaction.

Germ cell mutagenicity

Genotoxicity in vitro: Remarks: no data available

Carcinogenicity
Result: no data available

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity
Effects on fertility: Remarks: no data available

STOT - single exposure
Remarks: no data available

STOT - repeated exposure
Remarks:

Component/Mixture	NOAEL	NOEC
Aliphatic Amines	20 mg/kg (per weight and per day) (Rat)	

Aspiration toxicity: No aspiration toxicity classification

Further information Remarks: No data available

SECTION 12 - ECOLOGICAL INFORMATION

Aquatic Acute Toxicity:
Mixture:

Substance(s):

Aliphatic Amines

Sediment Toxicity
NOEC = 9000 – 18 000 mg/kg sediment dw - 28 Days.
EC10 = 4 300 – 11 850 mg/kg sediment dw - 28 Days.
LC50 = 21 650 mg/kg sediment dw - 10 Days.
Fish Toxicity
EC50 = 7,4 mg/L (Danio rerio) - 96 Hours (OECD Guidelines (OCDE 203)).
Short–term toxicity to fish: LC50 = 4 000 – 7 400 µg/L - 4 Days.
Short–term toxicity to fish: LC0 = 5 000 µg/L - 4 Days.
Short–term toxicity to fish: LC10 = 11 000 µg/L - 4 Days.
Short–term toxicity to aquatic invertebrates: EC50 = 14 500 µg/L - 21 Days.
Short–term toxicity to aquatic invertebrates: EC50 = 310 µg/L - 48 Hours.

Microorganism Toxicity
EC50 = 3 300 mg/L - 3 Hours.
LC50 = 1 255 mg/L (activated sludge) (OECD Guidelines (OCDE 209)).
Crustacean/Invertebrate Toxicity
Long–term toxicity to aquatic invertebrates: NOEC = 5000 - 50 000 µg/L - 21 Days.
Long–term toxicity to aquatic invertebrates: LOEC = 16 000 µg/L - 21 Days.
Long–term toxicity to aquatic invertebrates: EC50 = 14 500 µg/L - 21 Days.
EC50 = 1,45 mg/L (Daphnia magna) - 21 Days (OECD Guidelines (OCDE 211)).
NOEC = 50 mg/L (Daphnia magna) - 21 Days (OECD Guidelines (OCDE 211)).
Algae Toxicity
Toxicity to aquatic algae and cyanobacteria: EC50 = 25 350 µg/L - 72 Hours.
Toxicity to aquatic algae and cyanobacteria: EC10 = 9 400 µg/L - 72 Hours.
EC50 = 2,5 mg/L (Desmodesmus subspicatus) - 72 Hours (OECD Guidelines (OCDE 201)).
EC10 = 9,4 mg/L (Desmodesmus subspicatus) - 72 Hours (OECD Guidelines (OCDE 201)).

Ecotoxicology Assessment
Acute aquatic toxicity: Ceriodaphnia dubia LC50= 17.7 mg/L
Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

Persistence and Degradability
Mixture: Classified as cationic surface-active agent, considered as more than 90 % biodegradable.

Bioaccumulative Potential
Mixture: No data available

Mobility in Soil: No information available.
Mixture: No data available

Results of PBT and vPvB Assessments
The mixture does not contain any substances that meet the criteria for persistent, bioaccumulative, and toxic (PBT) / persistent and very bioaccumulative (vPvB) substances.

Endocrine Disrupting Properties
On the basis of the evidence available to us, the mixture does not contain any substances that meet the criteria for endocrine disrupting properties.

Other adverse effects: No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Treatment Methods: Do not pour into drains or waterways.
Waste: Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals. Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company. Do not contaminate the ground or water with waste, do not dispose of waste into the environment. At normal dose rate, will be assimilated in physico-chemical or biological wastewater treatment plants after acclimatization.

Container disposal:
Non-refillable container - Do not reuse empty container. Empty container completely. Keep label(s) on container. Give to a certified disposal contractor.

SECTION 14 - TRANSPORT INFORMATION

United States Department of Transportation (DOT):

UN Number:	UN3082
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty Amines)
Hazard Class:	9
Packing Group:	III
Environmental Hazards:	Yes

International Maritime Organization (IMDG):

UN Number:	UN3082
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty Amines)
Hazard Class:	9
Packing Group:	III
EmS:	F-A, S-F
Environmental Hazards:	Marine pollutant: yes

International Air Transportation Association (IATA):

UN Number:	UN3082
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty Amines)
Hazard Class:	9
Packing Group:	III
Environmental Hazards:	No

International Carriage by Rail/Road (RID/ADR):

UN Number:	UN3082
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty Amines)
Hazard Class:	9
Packing Group:	III
Classification Code:	M6
Hazard Identification Number	90
ADR/RID Labels:	9
Environmental Hazards:	Yes

Special precautions for user:	None
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

SECTION 15 - REGULATORY INFORMATION

INTERNATIONAL CHEMICAL REGISTRATION INFORMATION

Registration for All Components:

United States (TSCA) registered or exempt:	Yes
Australia (AICS) registered or exempt:	Yes
Canada (DSL/NDSL) registered or exempt:	Yes
China (IECSC) registered or exempt:	Yes
Europe (EINECS) registered or exempt:	Yes
Japan (ENCS) registered or exempt:	Yes
Korea (ECL) registered or exempt:	Yes

New Zealand (NZIoC) registered or exempt:	Yes
Philippines (PICCS) registered or exempt:	Yes
Taiwan (TSCI) registered or exempt:	Yes

US REGULATIONS

OSHA Hazard Communication Standard (29 CFR 1910.1200): Hazardous

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) – Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4) – Not regulated

SARA 304 Emergency Release Notification – Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) – Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 311/312 Hazardous Categorization:

Acute Health Hazard:	Yes
Chronic Health Hazard:	No
Fire Hazard:	No
Sudden Release of Pressure Hazard:	No
Reactive Hazard:	No

SARA 302 Extremely Hazardous Substance – Not listed.

SARA 311/312 Hazardous Chemical – Not listed

SARA 313:
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61):
This product does not contain any HAP's

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

California Proposition 65: This product does not contain any Proposition 65 chemicals.

SECTION 16 – OTHER INFORMATION

Revision Comments: N/A

Issue Date: 08/04/2025

Revision Date: N/A

Prepared by: Product Stewardship Team

This Safety Data Sheet was prepared to comply with the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Chemstream, Inc. provides no warranties; either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. The data contained in this Safety Data Sheet reflects the latest information available to us on hazards, properties, and handling of this product under the recommended conditions of use. The information on this Safety Data Sheet relates only to the material as supplied and does not relate to combinations with other materials or processes.