Safety Data Sheet

AMS X-TREME

SDS Number:	100	**Revision:**	February 28, 2017

Section 1 · *IDENTIFICATION*

Product Name AMS X-TREME

Other Identification Propriety mixture of Amonium Sulfate, Alkylarylpolyoxy Proprietary glycols, isopropanol and Humic Acids.

Product Form Mixture

Recommended Use Agricultural Industry – Spray adjuvant

Manufacturer

Company Name Custom Ag Formulators, Inc.

Address 3430 S Willow Ave, Fresno, CA 93725, United States

Telephone (800) 355-4457

Website www.4caf.com

Emergency Contacts	Custom Ag Formulators, Inc.	(559) 435-1052
	CHEMTREC	(800) 424-9300 (Domestic) (703) 527-3887 (International)

Section 2 · *HAZARD(S) IDENTIFICATION*

Classification of the Substance or Mixture

Classification (GHS-US)

Eye Irrit. 2A	H319
Skin Sens. 1	H317
Carc. 2	H351
STOT RE 2	H373
Aquatic Acute 2	H401
Aquatic Chronic 3	H412

Full text of H-phrases: see section 16

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GHS07 GHS08

Signal Word (GHS-US) : Warning

Hazard Statements (GHS-US) : H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H351 - Suspected of causing cancer.
H373 - May cause damage to organs through prolonged or

Precautionary Statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P302+P352 - If on skin: Wash with plenty of 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.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see section 4 on this SDS).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US)

No data available

Section 3 · *COMPOSITION/INFORMATION ON INGREDIENTS*

Substance

Not applicable

Mixture

Name	Product Identifier	%	Classification (GHS-US)
Proprietary glycol	(CAS No) Proprietary	Proprietary	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Proprietary alcohol	(CAS No) Proprietary	Proprietary	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Proprietary ingredient 3	(CAS No) Proprietary	Proprietary	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412
Proprietary trialkylamine	(CAS No) Proprietary	Proprietary	Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation), H330 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Ammonium Sulfate	(CAS No) 7783-20-2	Proprietary	Skin Irrit. 3, H315 Eye Irrit. 3, H319
Proprietary ingredient 6	(CAS No) Proprietary	Proprietary	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 STOT RE 2, H373 Aquatic Acute 2, H401 Aquatic Chronic 3, H412

Section 4 · *FIRST-AID MEASURES*

Inhalation When symptoms occur: go into open air and ventilate suspected area. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Obtain medical attention.

Ingestion Rinse mouth. Do not induce vomiting. Call a POISON CENTER or doctor/physician.

General Information Never give anything by mouth to an unconscious person. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

Section 5 · *FIRE-FIGHTING MEASURES*

Suitable extinguishing Dry powder, alcohol-resistant foam, water in large amounts, carbon dioxide (CO 2).

Unsuitable extinguishing Do not use a heavy water stream. A heavy water stream may spread burning liquid.

Specific hazards arising from the chemical Not considered flammable but may burn at high temperatures.

Special protective equipment and precautions for firefighters Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

Fire-fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Carbon dioxide, Carbon Monoxide Silicon oxides. Measurements at temperatures above150° C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

Section 6 · *ACCIDENTAL RELEASE MEASURES*

Personal precautions, protective equipment and emergency procedures

Avoid all eyes and skin contact and do not breathe vapor and mist.

Methods and materials for containment and cleaning up

Large Spills Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. If spilled directly onto the ground, remove sufficient soil to ensure material is fully recovered. Contact competent authorities after a spill.

Small Spills Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Environmental precautions

Do not allow runoff to sewer, waterway or ground.

Section 7 · *HANDELING & STORAGE*

Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Use appropriate personal protection equipment (PPE). Avoid contact with skin, eyes and clothing. Avoid breathing vapors, mist, and spray. *Hygiene Measures:* Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

Conditions for safe storage, including any incompatibilities

Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up.

Incompatible Products: Strong acids. Strong bases. Strong oxidizers. Acetaldehyde. Chlorine. Ethylene oxide. Isocyanates. Peroxides. Bromine.

Incompatible Materials: Heat sources.

Section 8 · *EXPOSURE CONTROLS/PERSONAL PROTECTION*

Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

Proprietary ingredient 6 (Proprietary)

USA ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (inhalable fraction and vapor)
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route,Confirmed Animal Carcinogen with

USA NIOSH	NIOSH REL (TWA) (mg/m³)	15 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	3 ppm

Proprietary glycol (Proprietary)

USA ACGIH	ACGIH Ceiling (mg/m³)	100 mg/m³ (aerosol only)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen

Proprietary alcohol (Proprietary)

USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	400 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA NIOSH	NIOSH REL (TWA) (mg/m³)	980 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m³)	1225 mg/m³
USA NIOSH	NIOSH REL (STEL) (ppm)	500 ppm
USA IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
USA OSHA	OSHA PEL (TWA) (mg/m³)	980 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm

Exposure Controls

Appropriate Engineering Controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal Protective Equipment : Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.

Materials for Protective Clothing : Chemically resistant materials and fabrics. **Hand Protection** : Wear chemically resistant protective gloves. **Eye Protection** : Chemical safety goggles.

Skin and Body Protection : Wear suitable protective clothing.

Respiratory Protection : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Other Information : When using, do not eat, drink or smoke.

Section 9 · *PHYSICAL & CHEMICAL PROPERTIES*

Appearance	Black, liquid.
Odor	Surfactant odor
Odor threshold	N/A
pH	6.93
Melting point/freezing point	N/A/< 35 °F (< 1.67 °C
Initial boiling point and boiling range	> 200 °F (> 93.33 °C)
Flash point	> 200 °F (> 93.33 °C)
Evaporation rate	N/A
Flammability (solid, gas)	N/A
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	N/A
Flammability limit - upper (%)	N/A
Explosive limit - lower (%)	N/A
Explosive limit - upper (%)	N/A
Vapor density	N/A

Relative density	8.9 lb/gal
Specific Gravity	1.07
Solubility(ies)	
Solubility (water)	100%
Partition coefficient (n-octanol/water)	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A
Viscosity	N/A

Section 10 · *STABILITY & REACTIVITY*

Reactivity	May react with oxidants.
Chemical stability	Material is stable under normal conditions
Possibility of hazardous reactions	Hazardous polymerization will not occur
Conditions to avoid	Direct sunlight. Extremely high or low temperatures. Sources of ignition. Incompatible materials.
Incompatible materials	Strong acids. Strong bases. Strong oxidizers. Acetaldehyde. Chlorine. Ethylene oxide. Isocyanates. Peroxides. Bromine.
Hazardous decomposition products	May release flammable gases. Carbon oxides (CO, CO 2). Nitrogen oxides. Hydrocarbons. Carbonyl compounds.

Section 11 · *TOXICOLOGICAL INFORMATION*

Information On Toxicological Effects

Acute Toxicity: Not classified

AMS X-treme

LD50 Oral Rat	> 5050
LD50 Dermal Rabbit	> 2020 mg/kg

Proprietary trialkylamine (Proprietary)

ATE (Oral)	500.00 mg/kg body weight
ATE (Gases)	100.00 ppmV/4h
ATE (Vapors)	0.50 mg/l/4h
ATE (Dust/Mist)	0.05 mg/l/4h

Proprietary ingredient 5 (Proprietary)

LD50 Oral Rat	12400 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg

Proprietary ingredient 6 (Proprietary)

LD50 Oral Rat	1820 mg/kg

Proprietary glycol (Proprietary)

LD50 Oral Rat	4700 mg/kg
LD50 Dermal Rat	10600 mg/kg
ATE (Oral)	500.00 mg/kg body weight
ATE (Dermal)	10,600.00 mg/kg body weight

Proprietary alcohol (Proprietary)

LD50 Oral Rat	4710 mg/kg
LD50 Dermal Rabbit	4059 mg/kg
LC50 Inhalation Rat	72.6 mg/l/4h (Exposure time: 4 h)

Proprietary ingredient 3 (Proprietary)

LD50 Oral Rat	1310 mg/kg

Skin Corrosion/Irritation: Not classified. Derived from a read across of a Primary Dermal Irritation study in WQhite New Zealand
rabbits, the Primary irritation index was .8, qualifying as “slightly irritating” (Pesticide Assessment Guidelines, Subdivision F, Hazard Evaluation: Series 81-5, EPA 540/9-84-014).

pH: 6.93

Serious Eye Damage/Irritation: Causes serious eye irritation. Derived from a read across of primary eye irritation study in White New Zealand rabbits. Effects were fully reversable within 21 days, but elicited pirmary irritation in 2 of 3 tested animals (Pesticide Assessment Guidelines, Subdivision F, Hazard Evaluation: Series 81-5, EPA 540/9-84-014).

pH: 6.93

Respiratory or Skin Sensitization: May cause an allergic skin reaction.
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Suspected of causing cancer.

Proprietary ingredient 5 (Proprietary)

IARC group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Proprietary ingredient 6 (Proprietary)

IARC group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Proprietary alcohol (Proprietary)

IARC group	3

Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: May cause irritation to the respiratory tract.
Symptoms/Injuries After Skin Contact: Causes skin irritation. May cause an allergic skin reaction.
Symptoms/Injuries After Eye Contact: Causes serious eye irritation. Redness, pain, swelling, itching, burning, tearing, and blurred vision.
Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.
Chronic Symptoms: Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

Section 12 · *ECOLOGICAL INFORMATION*

Toxicity

Ecology - General : Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

AMS X-treme

LC50 Fish 1	9.1 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
NOEC (acute)	3.2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

Proprietary trialkylamine (Proprietary)

NOEC chronic fish	0.5 mg/l

Proprietary ingredient 5 (Proprietary)

LC50 Fish 1	3.6 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-
EC50 Daphnia 1	2.15 mg/l (Exposure time: 48 h - Species: Daphnia pulex [Static])
ErC50 (algae)	2.2 mg/l (Exposure time: 72 h - Species: Scenedesmus subspicatus)

Proprietary ingredient 6 (Proprietary)

LC50 Fish 1	4460 (4460 - 4980) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-

EC50 Daphnia 1	55 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	1200 (1200 - 1580) mg/l (Exposure time: 96 h - Species: Pimephales promelas
EC50 Other Aquatic Organisms 2	2.1 (2.1 - 2.3) mg/l (Exposure time: 96 h - Species:
ErC50 (algae)	2.2 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella
NOEC chronic crustacea	0.78 mg/l
Proprietary glycol (Proprietary)	
LC50 Fish 1	41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss
Proprietary alcohol (Proprietary)	
LC50 Fish 1	9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	1000 mg/l (Exposure time: 96 h - Species: Desmodesmus
LC 50 Fish 2	11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas
EC50 Other Aquatic Organisms 2	1000 mg/l (Exposure time: 72 h - Species: Desmodesmus

12.2. Persistence and Degradability

AMS X-treme

Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

AMS X-treme

Bioaccumulative Potential	Not established.
Proprietary ingredient 6 (Proprietary)	
BCF fish 1	(no significant bioconcentration)
Log Pow	-2.18 (at 25 °C)
Proprietary glycol (Proprietary)	
Log Pow	-1.93
Proprietary alcohol (Proprietary)	
Log Pow	0.05 (at 25 °C)

12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

Section 13 · *DISPOSAL CONSIDERATION*

Disposal instructions	Consult federal, state and local regulations for disposal requirements.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Section 14 · *TRANSPORT INFORMATION*

General	Not DOT regulated in domestic (USA ground) transportation in package sizes less than 3,550 lbs (317 gallons); 1,610 kg (1,200 liters). The DOT

transportation information below is for shipments with package sizes equal to or exceeding this value. IMDG Regulated Marine Pollutant.

DOT - Basic shipping requirements:

UN number	Not regulated for transport
DOT Label	Not regulated for transport
Proper shipping name	Not regulated for transport
Hazard class	Not regulated for transport
Packing group	Not regulated for transport

IMGD - Basic shipping requirements:

UN number	Not regulated for transport
IMGD Label	Not regulated for transport
Proper shipping name	Not regulated for transport
Hazard class	Not regulated for transport
Packing group	Not regulated for transport
EMS NO	Not regulated for transport

IATA - Basic shipping requirements:

UN number	Not regulated for transport
Proper shipping name	Not regulated for transport
Hazard class	Not regulated for transport
Packing group	Not regulated for transport
OCAP	Not regulated for transport

Environmental hazards

Marine pollutant	Yes

Special precautions Read safety instructions, SDS and emergency procedures before handling.

Section 15 · *REGULATORY INFORMATION*

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List. This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Proposition 65 (CA) Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)		Not regulated
CERCLA Hazardous Substance List (40 CFR 302.4)		
	Reportable Quantity	Not applicable
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)		
	Hazard categories Immediate Hazard	Yes
	Delayed Hazard	No
	Fire Hazard	No
	Pressure Hazard	No
	Reactivity Hazard	No
SARA 302 Extremely hazardous substance		Not listed
SARA 311/312 Hazardous chemical		No Immediate (acute) health hazard

Delayed (chronic) health hazard

US State Regulations

Proprietary ingredient 5 (Proprietary)

U.S. - California - Proposition 65 - Carcinogens List WARNING: This product contains chemicals known to the State of

Proprietary ingredient 6 (Proprietary)

U.S. - California - Proposition 65 - Carcinogens List WARNING: This product contains chemicals known to the State of

Proprietary ingredient 6 (Proprietary)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Proprietary glycol (Proprietary)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Proprietary alcohol (Proprietary)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Section 16 · *OTHER INFORMATION*

Issue date February 28, 2017

Disclaimer The above information is based on data of which the manufacturer is aware and is believed to be correct as of the date hereon. Since the information contained herein may be applied under conditions beyond the manufacturer's control and which may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, the manufacturer does not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

GHS Full Text Phrases:

Acute Tox. 2 (Inhalation)	Acute toxicity (inhalation) Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3

STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation