SAFETY DATA SHEET

1. Identification

Product Identifier	**AF-99**	
Other means of identification		
Product code	CU-8200	
Recommended use	Concentrated anti-foaming agent.	
Recommended restrictions	None.	
Manufacturer information		
Company name	Chemical Universe, Inc.	
Address	1133 Saline St. North Kansas City, MO 64116	
Telephone	(816) 471-3602	
Fax	(816) 474-3302	
Emergency phone number	PERS	(800) 633-8253
	24 hour Emergency	(800) 633-8253

2. Hazard(s) Identification

Physical hazards	Not classified.	
Health hazards	Skin Irritant	Category 2
	Eye Irritant	Category 2A
Environmental hazards	Not classified.	
OSHA defined hazards	Not listed.	
Label elements		

Signal word	Warning.
Hazard statement	Causes skin irritation. Causes serious eye irritation.
Precautionary statement	
Prevention	Wash hands and exposed skin thoroughly after handling. Wear protective gloves. Wear eye protection/face protection.
Response	IF ON SKIN: Wash with plenty water. Specific treatment (see Section 4 on the Safety Data Sheet) If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Storage	
Disposal	
Hazard(s) not otherwise classified (HNOC)	None.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
2-butoxyethanol	111-76-2	5-10
Other components below reportable levels		90-100

4. First-aid measures

Inhalation	Move to fresh air if irritated.
Skin contact	Rinse with water.
Eye contact	Rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur. Do not induce vomiting.
Most important symptoms/effects, acute and delayed	Dermatitis. Rash. May cause an allergic skin reaction.
Indication of immediate medical attention and special treatment needed	Provide general support measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO_2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protecting clothing must be worn in case of fire.
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	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear appropriate protective equipment and clothing during clean-up. Wear eye/face protection.
Methods and materials for containment and cleaning up	Caution – spillages may be slippery. Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original container for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into areas not consistent with package labeling.

7. Handling and storage

Precautions for safe handling	Avoid contact with eye. Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Do not store in extreme conditions.

8. Exposure controls/personal protection

Occupational exposure limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-butoxyethanol	PEL	50 ppm

US ACGIH Threshold Limit Values

Components	Type	Value
2-butoxyethanol	STEL	20 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Species	Sampling Time
2-butoxyethanol	200 mg/g	Creatinine	Urine	End of shift.

Appropriate engineering controls Emergency eye wash stations and showers should be readily accessible.

Individual protection measures, such as personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other None.

Respiratory protection Respiratory protection not required.

Thermal hazards None.

General hygiene considerations When using do not smoke or use chewing tobacco. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking.

9. Physical and chemical properties

Appearance

Physical State Milky liquid.

Color White.

Odor Characteristic.

Odor threshold Not available.

pH 8

Melting/freezing point Not available.

Initial boiling point and boiling range >212°F (100°C)

Flash point >212°F (100°C)

Evaporation rate Not available.

Flammability Not available.

Flammability Limits

Upper Not available.

Lower Not available.

Vapor pressure Not available.

Vapor density Not available.

Specific gravity (water=1) 1.00

Solubility in water Soluble.

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	This product is stable and non-reactive under normal conditions of use.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames can cause product to decompose.
Incompatible materials	None.
Hazardous decomposition products	Carbon dioxide, carbon monoxide.

11. Toxicological information

Information on likely routes of exposure	
Ingestion	Expected to be a low ingestion hazard.
Inhalation	Expected to be a low inhalation hazard.
Skin contact	Prolonged skin contact causes irritation.
Eye contact	Repeated and/or prolonged eye contact causes eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Dermatitis. Rash. May cause an allergic skin reaction.
Acute toxicity	Not established.

Product	**Route and Species**	**LD_{50}**
AF-99 (CAS mixture)		
Acute	*Oral*, rat	13,000 mg/kg estimated

*Estimates for product may be based on additional component data not shown

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/ irritation	Causes serious eye irritation.
Respiratory sensitization	Not classified.
Skin sensitization	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not considered a carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not Listed.

Reproductive toxicity	Not classified.
Specific target organ toxicity – single exposure	Not classified.
Specific target organ toxicity – repeated exposure	Not classified.
Aspiration hazard	Not considered an aspiration hazard.

12. Ecological information

Ecotoxicity

Product	Species	Test Results
AF-99 (CAS mixture)		
Aquatic		
Fish	Oncorhynchus mykiss	LC_{50}(96hr): 15,000mg/L estimated

*Estimates for product may be based on additional component data not shown

Persistence and degradability	Not available.
Bioaccumulative potential	Potential to bioaccumulate is low.
Mobility in soil	Not available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Dispose of in accordance with local regulations.
Local disposal regulations	None.
Waste from residues/unused product	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 rinsed with water and recycled.

14. Transport information

DOT

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations .

SARA 302 Extremely hazardous substance

Not listed.

SARA 304 Emergency release notification

Not listed.

SARA 311/312 Hazard Categories

Immediate Hazard - Yes

Delayed Hazard – No

Fire Hazard – No

Pressure Hazard – No

Reactivity Hazard – No

SARA 313 (TRI reporting)

2-butoxyethanol (Glycol Ether Category)

16. Other information, including date of preparation or last revision

Issue date	10/6/2016
Revision date	10/6/2016
Version #	1
HMIS® ratings	Health: 1 Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 1 Flammability: 0

	Instability: 0
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, and have been obtained from resources believed to be reliable. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information related 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 by the text.
Revision information	First issue.