

1. PRODUCT AND COMPANY IDENTIFICATIONProduct Identifier

Product Name: AC-C Probiotic Biosurfactant HVAC Coil Cleaner
Product Code: ZB/ACC/xxxx (xxxx signifies container size)
Other means of identification: None

Recommended use of the chemical and restrictions on use

Recommended Use: Cleaning agent
Uses advised against: Use only as stated on label
Product Dilution: Dilute 1:10

Details of the supplier of the safety data sheet



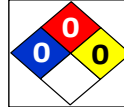
Manufactured by / Distributed by:
 Z BioScience Inc.
 800 S. Ohio St.
 Tuscola, IL 61953 USA

Telephone numbers:

24 Hour Emergency Phone Number: INFOTRAC (800) 535-5053
 Company Phone Number: (310) 643-1402

2. HAZARDS IDENTIFICATION

Appearance: Clear, slightly hazy **Physical state:** Liquid **Odor:** Slightly soapy

Classification	Concentrated Product	Product Diluted >1:10
Acute toxicity - Oral	Category 4	No significant hazards
Eye irritation	Category 2	Slight irritation possible
Respiratory sensitization	No significant hazards	No significant hazards
Skin sensitization	No significant hazards	No significant hazards
Label Elements	Signal Word: Warning	Signal Word: None
Hazard statements:	Harmful if concentrate is swallowed	This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).
	May cause eye irritation  	

Emergency Overview - Concentrated Product

GENERAL STATEMENT: IN ALL CASES OF DOUBT OR WHEN SYMPTOMS PERSIST, ALWAYS SEEK MEDICAL ATTENTION!

Precautionary Statements - Response: Specific Treatment (See Section 4 in the SDS)

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.

IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms contact a doctor/physician.

IF SWALLOWED: Call a Poison Center or doctor/physician if you feel unwell.

Precautionary Statements - Disposal

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Precautionary Statements - Storage

Keep out of reach of children.

Hazards not otherwise classified (HNOC)

None known.

Other information

Unknown Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common name and synonyms	CAS number	%*
Sodium Laureth Sulfate		68585-34-2	5-<15*
Other components below reportable levels			80 - < 95*

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

	<u>Concentrated Product</u>	<u>Diluted Product >1:10</u>
Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a doctor/physician if you feel unwell.	Non-reactive. No First-aid needed
Skin Contact	Take off all contaminated clothing. Wash off with soap and water. Call physician if you feel unwell. Wash contaminated clothing before reuse.	Non-irritating. No First-aid needed
Eye Contact	Immediately flush eyes with plenty of water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Contact a physician immediately.	May be slightly irritating. Rinse thoroughly with plenty of water. If irritation persists contact physician.
Ingestion	Rinse mouth. Do not induce vomiting without advice from physician or poison control center.	Non-toxic. No First-aid needed.
Symptoms/effects, acute and delayed	Harmful if swallowed. Causes serious eye irritation. Causes mild skin irritation.	None
Special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.	None anticipated.
General information	Follow directions above. If you feel unwell seek medical advice. Show label and SDS to attending First-aid giver and/or physician if possible.	

5. FIRE-FIGHTING MEASURES

	<u>Concentrated Product</u>	<u>Diluted Product >1:10</u>
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	Does not burn.
Unsuitable extinguishing media	Not determined.	None
Specific hazards arising from the burning of chemicals	Product is not flammable or combustible.	Does not burn.
Fire fighting equipment/instructions	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.	
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

	<u>Concentrated Product</u>	<u>Diluted Product >1:10</u>
Personal precautions, protective equipment and emergency procedures	Wear protective clothing as described in Section 8 of this safety data sheet.	None needed. Caution floor may be slippery.
Methods and materials for containment and cleaning up	Sweep up and shovel into suitable containers for disposal. For waste disposal, see Section 13. of this safety data sheet.	Where possible, vacuum spilled liquid to recover material. Rinse water may be disposed of down a sanitary sewer system if authorized by the local municipality.
Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12. Ecological Information.	None needed - non-toxic, non-hazardous in diluted form.

7. HANDLING AND STORAGE

Precautions/Advice for safe handling	Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when handling this product. Wear eye/face protection.	Normal ventilation is adequate. Avoid contact with eyes. Wear safety glasses.
Conditions for safe storage, including any incompatibilities	Keep away from children and pets. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).	

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Occupational exposure limits**

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

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Proprietary alcohol	STEL: 400 ppm TWH: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ² (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ² (vacated) STEL: 500 ppm (vacated) STEL: 980 mg/m ²	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ² STEL: 500 ppm STEL: 1225 mg/m ²

Biological limit values	No biological exposure limits noted for the ingredient(s)	No exposure limits.
Appropriate engineering controls	Apply technical measures to comply with the occupational exposure limits. Ensure that eyewash stations and safety showers are close to a workstation location. Provide adequate ventilation.	

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields or goggles. Refer to 29 CFR 1910.133 for eye and face protection regulations.	Safety glasses recommended
Skin protection - hands/other	Wear protective gloves and protective clothing. Refer to 29 CFR 1910.138 for appropriate skin and body protection.	None normally required. If allergic wear gloves and appropriate clothing/apron.
Respiratory protection	If TLV is exceeded, use a NIOSH/MSHA approved respirator. Refer to 29 CFR 1910.134 for respiratory protection requirements.	None normally required.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	None needed
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.	

9. PHYSICAL AND CHEMICAL PROPERTIES

	<u>Concentrated Product</u>	<u>Diluted Product >1:10</u>
Appearance	Light amber liquid	Clear
Physical state	Liquid	Liquid
Form	Liquid	Liquid
Color	Light yellow	Clear
Odor	Slightly sweet	Slightly soapy
Odor threshold	Not determined	Not determined
pH	7.5 - 8.5	Not determined
Melting point/freezing point	Not determined	32°F (-0°C) estimated
Initial boiling point and boiling range	212 °F (100°C) estimated	212 °F (100°C) estimated
Flash point	Not determined	Not determined
Evaporation rate	Same as water	Same as water
Flammability (solid, gas)	Not determined	Not determined
Upper/lower flammability limits	Not determined	Not determined
Upper/lower explosive limits	Not determined	Not determined
Vapor pressure	4300 @ 20 °C	Not determined
Vapor density	Not determined	Not determined
Relative density	1.01	Not determined
Solubility(ies) in water	Not determined	Complete
Partition coefficient (in n-octanol/water)	Not determined	Not determined
Auto-ignition temperature	No information available	No information available
Decomposition temperature	No information available	No information available
Viscosity	Not determined	Not determined
Density	8.7 lbs/gal estimated	Not determined
Explosive properties	Not explosive	Not explosive
Flammability class	IIIB - non-flammable, non-combustible	Non-flammable, Non-combustible
Oxidizing properties	Not oxidizing	Non oxidizing
Percent volatile	Not determined	Not determined
Specific gravity	1.08	Not determined
VOC (weight %)	1% estimated	Not determined

10. STABILITY AND REACTIVITY

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport	None known
Chemical stability	Material is stable under recommended storage conditions	Stable
Possibility of hazardous reactions	None under normal processing	None known
Conditions to avoid	Keep out of reach of children.	None known
Incompatible materials	Strong oxidizing agents	None known
Hazardous decomposition	Carbon oxides.	None known

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

	<u>Concentrated Product</u>	<u>Diluted Product >1:10</u>
Inhalation	Not classified	Not classified
Skin contact	Prolonged contact may cause redness and irritation.	Not harmful
Eye contact	May cause irritation	Slight irritation possible
Ingestion	Harmful if swallowed.	Not classified
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation	Slight irritation possible

Component Information	Chemical Name	ATEmix (oral)	ATEmix (dermal)	Inhalation LC50
	Proprietary detergent	= 1600 mg/kg (Rat)	-	-
	Proprietary alcohol	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h

Information on toxicological effects	See Section 4. of this safety data sheet for symptoms.	No significant hazards
Delayed and immediate effects as well as chronic defects from short and long-term exposure		
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.	

Chemical Name	ACGIH	IARC	NTP	OSHA
Proprietary alcohol		Group 3		X

Legend

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Numerical measures of toxicity	Not determined
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The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral) 1,851.00 mg/kg

12. ECOLOGICAL INFORMATION

	Concentrated Product	Diluted Product >1:10
Ecotoxicity	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.	
Persistence and degradability	Not available	No significant hazards
Mobility in soil	Not available	No significant hazards
Other adverse effects	Not determined	Not determined

Component Information - Concentrate Ingredients

Chemical Name	Algae/aquatic plants	Fish	Crustacean
Proprietary alcohol	1000: 96 h Desmodemus subspicatus mg/L EC50 1000: 72h Desmodesjus subspicatus mg/L EC50	1400000: 96 h Lepomis macrochirus ug/L LC50 9640: 96h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static	13299: 48 h Daphnia magna mg/L EC50
Proprietary glycol		5000: 24h Carassius auratus mg/L LC50	
Proprietary acid		5000: 96H Brachydanio rerio mg/L LC50	

Persistence - Degradability	Not determined
Bioaccumulation	Not determined
Other Adverse Effects	Not determined

Mobility	Chemical Name	Partition Coefficient
	Proprietary Alcohol	0.05
	Proprietary Acid	-1.11

13. DISPOSAL CONSIDERATIONS

	Concentrated Product	Diluted Product >1:10
Disposal instructions	Sweep up and shovel into suitable containers for disposal. For waste disposal, see Section 13. of this safety data sheet.	Where possible, vacuum spilled liquid to recover material. Rinse water may be disposed of down a sanitary sewer system if authorized by the local municipality.
Disposal regulations	Dispose in accordance with all applicable procedures and regulations, international, national and local.	

Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.	
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	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.	Not hazardous

14. TRANSPORT INFORMATION

	<u>Concentrated Product</u>	<u>Diluted Product >1:10</u>
DOT	Not regulated as dangerous goods	
IATA	Not regulated as dangerous goods	
IMDG	Not regulated as dangerous goods	
Transport in bulk according to Annex II of MARPOL 73/38 and the IBC Code	Not established	
Note	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.	

15. REGULATORY INFORMATION

US Federal Regulations

CERLA	This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this material.
SARA 313	Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This material, as supplied, does not contain any a chemical or chemicals subject to reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
CWA (Clean Water Act)	This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

311/312 Hazard Categories

Acute health hazard	No
Chronic health hazard	No
Fire hazard	No
Reactive hazard	No
Sudden release of pressure hazard	No

US State Regulations

California Proposition 65	This product does not contain any Proposition 65 chemicals.
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State right to know

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Proprietary alcohol	X	X	X

Other Federal Regulations

	<u>Concentrated Product</u>	<u>Diluted Product >1:10</u>
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated	
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated	
Safe Drinking Water Act (SDWA)	Nor regulated	

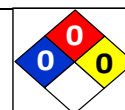
International Inventories

Country(s) or Region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Complies
Canada	Domestic Substances List (DSL)	Complies
Canada	Non-domestic Substances List (NDSL)	Complies
China	Inventory of Existing Chemical Substances in China (IEDSD)	Complies
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	-
Europe	European List of Notified Chemical Substances (ELINCS)	-
Japan	Inventory of Existing and New Chemical Substances (ENCS)	-
Korea	Existing Chemicals List (ECL)	-
New Zealand	New Zealand Inventory	Complies
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Complies
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	-

16. OTHER INFORMATION

	Concentrated Product		Diluted Product >1:10	
	HMIS® Ratings	NFPA Ratings	HMIS® Ratings	NFPA Ratings
Health	1	1	0	0
Flammability	0	0	0	0
Instability	0	0	0	0
Personal Protection	A	A	-	-

Symbol



Prepared by: Regulatory Department
 Issue date: 1/14/2016
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 Version #: 5

Disclaimer 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 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 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.

Revision Information Physical & Chemical Properties: Multiple Properties
 Regulatory Information: United States.

END OF SAFETY DATA SHEET