

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 07/16/2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance

Substance name : ECSB01 BlueStar EcoSpray Aerosol Spray Device

Product code : ECSB01

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Propellant

1.3. Details of the supplier of the safety data sheet

SIRCHIE Finger Print Laboratories

100 Hunter Place

Youngsville, NC 27596 - USA

T 919-554-2244; 800-356-7311 - F 919-554-2266; 800-899-8181

http://www.sirchie.com

1.4. Emergency telephone number

Emergency number : 1.800.424.9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Other hazards

Other hazards not contributing to the

: Contains gas under pressure; may explode if heated.

classification

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type : Mono-constituent

Name : ECSB01 BlueStar EcoSpray Aerosol Spray Device

Name	Product identifier	%	Classification (GHS-US)
1,1,1,2-tetrafluoroethane	(CAS No) 811-97-2	100	Compressed gas, H280

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

No additional information available

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

No additional information available

09/15/2015 EN (English US) Page 1

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

5.2. Special hazards arising from the substance or mixture

Reactivity : No reactivity hazard other than the effects described in sub-sections below.

Advice for firefighters 5.3.

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

For emergency responders 6.1.2.

No additional information available

Environmental precautions

No additional information available

Methods and material for containment and cleaning up

No additional information available

Reference to other sections

No additional information available

SECTION 7: Handling and storage

Precautions for safe handling

No additional information available

Conditions for safe storage, including any incompatibilities

No additional information available

7.3 Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

ECSB01 BlueStar EcoSpray Aerosol Spray Device

8.1. **Control parameters**

ACGIH	Not applicable
OSHA	Not applicable
1,1,1,2-tetrafluoroethane (811-97-2)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. **Exposure controls**

Color

Personal protective equipment : Not required for normal conditions of use.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties 9.1.

Physical state : Gas

Relative evaporation rate (butyl acetate=1)

Appearance : Clear, colorless gas. : Colorless

Odor : Mild odour Odor threshold : No data available : No data available pΗ Melting point No data available

Freezing point : No data available : No data available Boiling point Flash point No data available

09/15/2015 EN (English US) 2/1

: No data available

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Flammability (solid, gas) : No data available **Explosion limits** : No data available Explosive properties : No data available Oxidizing properties : No data available : No data available Vapor pressure Relative density : No data available Relative vapor density at 20 °C : No data available Solubility Insoluble in water.

Water: Solubility in water of component(s) of the mixture :

: 0.15 g/100ml: No data available: No data available

Log Kow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Log Pow

No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

No reactivity hazard other than the effects described in sub-sections below.

10.4. Conditions to avoid

High temperature.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

1,1,1,2-tetrafluoroethane (811-97-2)	
LC50 inhalation rat (mg/l)	> 2000 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	> 359300 ppm/4h (Rat; Literature study)
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

09/15/2015 EN (English US) 3/1

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 12: Ecological information

12.1. **Toxicity**

1,1,1,2-tetrafluoroethane (811-97-2)	
LC50 fish 1	450 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 1	980 mg/l (48 h; Daphnia magna)

12.2. Persistence and degradability

1,1,1,2-tetrafluoroethane (811-97-2)	
Persistence and degradability	Not readily biodegradable in water.

12.3. **Bioaccumulative potential**

1,1,1,2-tetrafluoroethane (811-97-2)	
BCF other aquatic organisms 1	5 - 58 (Estimated value)
Log Pow	1.06 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Mobility in soil

No additional information available

Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

Waste treatment methods

No additional information available

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Hazard labels (DOT)

Transport document description : UN3159 1,1,1,2-Tetrafluoroethane, 2.2

UN-No.(DOT) : UN3159

Proper Shipping Name (DOT) : 1,1,1,2-Tetrafluoroethane

Department of Transportation (DOT) Hazard

Classes

: 2.2 - Non-flammable gas



DOT Packaging Non Bulk (49 CFR 173.xxx) : 304 DOT Packaging Bulk (49 CFR 173.xxx) : 314;315

DOT Special Provisions (49 CFR 172.102) : T50 - When portable tank instruction T50 is referenced in Column (7) of the 172.101 Table, the

applicable liquefied compressed gases are authorized to be transported in portable tanks in

accordance with the requirements of 173.313 of this subchapter.

: 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115

DOT Packaging Exceptions (49 CFR 173.xxx) : 306

DOT Quantity Limitations Passenger aircraft/rail : 75 kg

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 150 kg

CFR 175.75)

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a **DOT Vessel Stowage Location**

passenger vessel.

Additional information

Other information : No supplementary information available.

09/15/2015 EN (English US) 4/1

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

ADR

No additional information available

Transport by sea

No additional information available

Air transport

UN-No.(IATA) : 3159

Proper Shipping Name (IATA) : 1,1,1,2-Tetrafluoroethane

Class (IATA) : 2

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Revision date	: 07/16/2015
Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Training advice	: Normal use of this product shall imply use in accordance with the instructions on the packaging. Keep in tightly closed container. Keep cool and dry. Avoid all ignition sources - heat, open flame, sparks. Avoid incompatible materials. Avoid dust creation and accumulation. Avoid inhalation and ingestion. Avoid contact with eyes. Wash thoroughly after handling.

: This Safety Data Sheet has been established in accordance with the applicable European

Union legislation.

Full text of H-phrases:

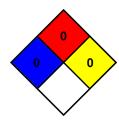
Other information

Compressed gas	Gases under pressure Compressed gas
H280	Contains gas under pressure; may explode if heated

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



09/15/2015 EN (English US) 5/1

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

HMIS III Rating

Health : 0 Minimal Hazard - No significant risk to health Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT

react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.

09/15/2015 EN (English US) 6/1