Safety Data Sheet
acc. to OSHA HCS

Printing date 06/13/2018 Reviewed on 06/13/2018

1 Identification

· **Product identifier**

· **Trade name: BullFrog® 93896 Rust Blocker**
· **Application of the substance / the mixture**
Corrosion inhibitors
Coating

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Cortec Corporation
4119 White Bear Parkway
St. Paul, MN 55110 USA
Phone (651) 429-1100
Fax (651) 429-1122

· **Information department:** compliance@cortecvci.com
· **Emergency telephone number:**
Spill, Leak, Fire, Exposure, or Accident
24 hour CHEMTREC contact:
USA and Canada 1-800-424-9300
International +1-703-527-3887 (collect calls accepted)

2 Hazard(s) identification

· **Classification of the substance or mixture**

GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.

· **Label elements**
· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS07

· **Signal word** Warning
· **Hazard statements**
Causes skin irritation.
Causes serious eye irritation.
· **Precautionary statements**
Wash thoroughly after handling.
Wear protective gloves / eye protection / face protection.
If on skin: Wash with plenty of water.
Specific treatment (see first aid statements on this label).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If eye irritation persists: Get medical advice/attention.

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/13/2018 Reviewed on 06/13/2018

Trade name: BullFrog® 93896 Rust Blocker

(Contd. of page 1)

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**		
CAS: 108-01-0 EINECS: 203-542-8	2-dimethylaminoethanol Flam. Liq. 3, H226; Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	≥1-≤2.5%
CAS: 112-34-5 EINECS: 203-961-6	2-(2-butoxyethoxy)ethanol Eye Irrit. 2A, H319	≥0.1-≤2.5%

· **Additional information**
In accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR 1910.1200), the specific chemical identity and/or exact percentage composition has been withheld as a trade secret.
For the wording of the listed hazard phrases refer to section 16.

*
4 First-aid measures

· **Description of first aid measures**
· **After inhalation** Supply fresh air; consult doctor in case of complaints.
· **After skin contact**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· **After eye contact** Rinse opened eye for several minutes under running water.
· **After swallowing** Do not induce vomiting. Immediately call a poison center or a doctor/physician.
· **Information for doctor** Show this safety data sheet to the doctor in attendance.
· **Most important symptoms and effects, both acute and delayed**
The symptoms and effects are as expected from the hazards shown in section 2. No specific product related symptoms are known.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture**
Nitrogen oxides (NOx)
Carbon monoxide (CO)
· **Advice for firefighters** Self-contained breathing apparatus
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

(Contd. on page 3)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/13/2018 Reviewed on 06/13/2018

Trade name: BullFrog® 93896 Rust Blocker

(Contd. of page 2)

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:** Do not allow undiluted product to enter sewers/surface or ground water
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
· **Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling**
· **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:**
Do not store together with acids.
Store away from foodstuffs.
· **Further information about storage conditions:**
Keep product from freezing.
Keep receptacle tightly sealed.
· **Storage class** 12
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

112-34-5 2-(2-butoxyethoxy)ethanol (≥0.1-≤2.5%)	
TLV	Long-term value: 67.5* mg/m³, 10* ppm *Inhalable fraction and vapor

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls** Use local exhaust ventilation to control airborne concentrations below exposure limits.
· **Personal protective equipment**
· **General protective and hygienic measures**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

(Contd. on page 4)

Safety Data Sheet
acc. to OSHA HCS

Trade name: BullFrog® 93896 Rust Blocker

(Contd. of page 3)

· **Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device only when aerosol or mist is formed.
Filter A/P2.
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). To determine the appropriate type of respiratory protection that should be used, a hazard assessment should be performed prior to using the product. Environmental conditions such as ventilation and other contaminants may affect the type of respiratory protection that is chosen.

· **Protection of hands:**
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Protective Gloves** I.E., Nitrile, Viton, Neoprene

· **Eye protection:** Goggles recommended during refilling.

· **Body protection:** Protective work clothing.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Viscous
Color:	Light beige
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.
· **pH-value at 20 °C (68 °F):**	8.7-10 (Neat)
· **Change in condition**	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined
· **Flash point:**	Not applicable
· **Flammability (solid, gaseous)**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure at 20 °C (68 °F):**	23 hPa (17.3 mm Hg) (*)
· **Density at 20 °C (68 °F):**	0.95-1.01 g/cm³ (7.9-8.4 lbs/gal)
· **Relative density**	Not determined.
· **Vapor density**	Not determined.

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS

Trade name: BullFrog® 93896 Rust Blocker

(Contd. of page 4)

· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with Water:**	Fully miscible
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
dynamic:	Not determined.
kinematic:	Not determined.
· **Solvent content:**	
VOC Content:	25.8 g/l / 0.22 lb/gl
· **Other information**	The above data are typical values and do not constitute a specification. *Properties have been calculated.

*
10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability** Stable under recommended storage conditions
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known

*
11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
108-01-0 2-dimethylaminoethanol		
Oral	LD50	1,183 mg/kg (Rat)
Dermal	LD50	1,219 mg/kg (Rabbit)
Inhalative	LC50/4 h	6 mg/l (Rat)
112-34-5 2-(2-butoxyethoxy)ethanol		
Oral	LD50	2,410 mg/kg (Rat)
Dermal	LD50	2,764 mg/kg (Rabbit)
Inhalative	LC50/4 h	>29 mg/l (Rat)

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/13/2018 Reviewed on 06/13/2018

Trade name: BullFrog® 93896 Rust Blocker

(Contd. of page 5)

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
100-42-5	styrene	2B
50-00-0	formaldehyde	1
79-10-7	acrylic acid	3
80-62-6	methyl methacrylate	3

· **NTP (National Toxicology Program)**		
100-42-5	styrene	R
50-00-0	formaldehyde	K

· **OSHA-Ca (Occupational Safety & Health Administration)**	
50-00-0	formaldehyde

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**	
LC50/ 48 h (static)	3,110 mg/l (M. beryllina (Inland Silverside)) (48 Hours)
	2,610 mg/l (Mysidopsis bahia)
LOEC (static)	4,800 mg/l (M. beryllina (Inland Silverside)) (LOEC)
	2,400 mg/l (Mysidopsis bahia) (LOEC)
NOEC (static)	2,400 mg/l (M. beryllina (Inland Silverside)) (2 days)
	1,200 mg/l (Mysidopsis bahia) (2 days)

108-01-0 2-dimethylaminoethanol	
LC50	146.6 mg/l (Leuciscus idus (ide or orfe)) (96 hours)
EC50	66.08 mg/l (Desmodesmus subspicatus) (72 Hours)
	98.37 mg/l (Daphnia magna) (48 Hours)

· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation** Dispose of in accordance with local, state, and federal regulations.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

(Contd. on page 7)

Safety Data Sheet
acc. to OSHA HCS

(Contd. of page 6)

14 Transport information

· **UN-Number** · **DOT, ADR, ADN, IMDG, IATA**	Void
· **UN proper shipping name** · **DOT, ADR, ADN, IMDG, IATA**	Void
· **Transport hazard class(es)** · **DOT, ADR, ADN, IMDG, IATA** · **Class**	Void
· **Packing group** · **DOT, ADR, IMDG, IATA**	Void
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	Void

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
The following chemicals are contained in this product below 0.05%: styrene, formaldehyde, methanol, acrylic acid, and methyl methacrylate.

· **Sara**

· **SARA Section 355 (extremely hazardous substances)**

50-00-0	formaldehyde

· **SARA Section 313 (specific toxic chemical listings)**

112-34-5	2-(2-butoxyethoxy)ethanol
100-42-5	styrene
50-00-0	formaldehyde
67-56-1	Methanol
79-10-7	acrylic acid
80-62-6	methyl methacrylate

· **TSCA (Toxic Substances Control Act) (Substances not listed)**

All ingredients are listed.

· **Proposition 65**

· **Prop 65 - Chemicals known to cause cancer**

100-42-5	styrene
50-00-0	formaldehyde

· **Chemicals known to cause reproductive toxicity for females**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males**

None of the ingredients is listed.

(Contd. on page 8)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/13/2018 Reviewed on 06/13/2018

Trade name: BullFrog® 93896 Rust Blocker

(Contd. of page 7)

· **Chemicals known to cause developmental toxicity**	
67-56-1	Methanol

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**		
50-00-0	formaldehyde	B1
80-62-6	methyl methacrylate	E, NL

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**	
50-00-0	formaldehyde

· **Canadian Domestic Substances List (DSL) (Substances not listed)**
All ingredients are listed.

· **Philippines Inventory of Chemicals and Chemical Substances (Substances not listed)**
Polyurethane resin

· **Chinese Chemical Inventory of Existing Chemical Substances (Substances not listed)**
All ingredients are listed.

· **Australian Inventory of Chemical Substances (Substances not listed)**
All ingredients are listed.

· **New Zealand Inventory of Chemicals (Substances not listed)**
Alkyl phosphate ester
Polyurethane resin
Proprietary surfactant

· **Existing Chemical Substances (Substances not listed)**
Distillates (petroleum), solvent-dewaxed light paraffinic
Orange oil, sweet terpenes

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**

GHS07

· **Signal word** Warning
· **Hazard statements**
Causes skin irritation.
Causes serious eye irritation.
· **Precautionary statements**
Wash thoroughly after handling.
Wear protective gloves / eye protection / face protection.
If on skin: Wash with plenty of water.
Specific treatment (see first aid statements on this label).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If eye irritation persists: Get medical advice/attention.

(Contd. on page 9)

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/13/2018 Reviewed on 06/13/2018

Trade name: BullFrog® 93896 Rust Blocker

(Contd. of page 8)

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
Wasser	25-50
NK	≥0.1-≤2.5

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
Cortec Corporation does not warranty any translation of this SDS not created by Cortec Corporation.

· **Date of preparation / last revision** 06/13/2018 / -

· **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

· *** Data compared to the previous version altered.**