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

· 1.1 Product identifier

· Trade name: BullFrog® 93896 Rust Blocker

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

No further relevant information available.

· Application of the substance / the mixture

Corrosion inhibitors

Coating

- · 1.3 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
- · 1.4 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)

UK +(44)-870-8200418

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· Precautionary statements

P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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P362+P364 Take off contaminated clothing and wash it before reuse. P337+P313 If eye irritation persists: Get medical advice/attention.

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

SECTION 3: Composition/information on ingredients

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

· Ingredients:		
	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%
	2-(2-butoxyethoxy)ethanol • Eye Irrit. 2, H319	≥0.1-≤2.5%

· Additional information

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 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.
- · 4.2 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.

- Information for doctor Show this safety data sheet to the doctor in attendance.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents Use fire fighting measures that suit the environment.
- · 5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NOx)

Carbon monoxide (CO)

- 5.3 Advice for firefighters Self-contained breathing apparatus
- · Protective equipment: Wear self-contained respiratory protective device.

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SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures





Wear protective equipment. Keep unprotected persons away.

- 6.2 Environmental precautions: Do not allow undiluted product to enter sewers/surface or ground water
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 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.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires: No special measures required.
- · 7.2 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
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Components with limit values that require monitoring at the workplace:

108-01-0 2-dimethylaminoethanol (≥1-≤2.5%)

WEL Short-term value: 22 mg/m³, 6 ppm Long-term value: 7.4 mg/m³, 2 ppm

112-34-5 2-(2-butoxyethoxy)ethanol (≥0.1-≤2.5%)

WEL Short-term value: 101.2 mg/m³, 15 ppm Long-term value: 67.5 mg/m³, 10 ppm

- Additional information: The lists that were valid during the creation were used as basis.
- 8.2 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.

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· Breathing equipment:

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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, and 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.

SECTION 9: Physical and chemical properties		
9.1 Information on basic physical and chemical properties		
· General Information		

Form: Viscous liquid
Colour: Light beige
Odour: Characteristic
Odour threshold: Not determined.

• **pH-value at 20 °C:** 8.7-10 (Neat)

· Change in condition

Appearance:

Melting point/freezing point: undetermined Initial boiling point and boiling range: undetermined

Flash point: Not applicableFlammability (solid, gaseous) Not applicable.

Decomposition temperature: Not determined.

Self igniting: Product is not selfigniting.

• Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined. Upper: Not determined.

· Vapour pressure at 20 °C: 23 hPa (*)

• Density at 20 °C: 0.95-1.01 g/cm³ • Relative density Not determined.

• Vapour density Not determined.

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· 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 (EC)	25.8 g/l
9.2 Other information	The above data are typical values and do not constitute a specification *Properties have been calculated.

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· 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	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:
- Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.

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· Aspiration hazard Based on available data, the classification criteria are not met.

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SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:		
LC50/48 h (static)	atic) 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)	

- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation Dispose of in accordance with local, state, and federal regulations.
- · European waste catalogue

The European Waste Catalogue (EWC) waste codes do not refer to product but to origin. The manufacturer is therefore unable to quote a waste code for products which are used in various industries. Any codes shown should be regarded as a recommendation to the user.

	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 02 00	wastes from MFSU of other coatings (including ceramic materials)
08 02 99	wastes not otherwise specified

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

SECTION 14: Transport information

- · 14.1 UN-Number
- · ADR, ADN, IMDG, IATA Void

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· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void	
· 14.3 Transport hazard class(es)		
· ADR, ADN, IMDG, IATA · Class	Void	
· 14.4 Packing group · ADR, IMDG, IATA	Void	
· 14.5 Environmental hazards:	Not applicable.	
· 14.6 Special precautions for user	Not applicable.	
· 14.7 Transport in bulk according to Ann Marpol and the IBC Code	ex II of Not applicable.	
· UN "Model Regulation":	Void	

SECTION 15: Regulatory information

- 15.1 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.
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · National regulations
- · Technical instructions (air):

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

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

SECTION 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.

· Relevant phrases

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

· 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)

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IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals 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 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. 2: Serious eye damage/eye irritation – Category 2

* Data compared to the previous version altered.

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