

SAFETY DATA SHEET

Product Name : FSS ProGuard Green D3

Date Issued : April 21, 2016

SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

Product Name: FSS ProGuard Green D3 **Chemical Synonym / C# :** c1166AD
Formula : Multi-component mixture **Chemical Family:** Mild alkali
Product Use: Specialty Corrosion Inhibitor and MIC Preventative

Supplier : Falck (Victoria) Pty Ltd. Level 2, 28 Kay Street, Traralgon, Victoria, 3844
Emergency Telephone : +61 3 5176 1362

Manufacturer : Huguenot Laboratories 101 Riverdale Rd. Port Jervis, NY 12771
Information Telephone : +001 800 228 3793

SECTION 2 : HAZARD IDENTIFICATION

Form : Liquid **Color :** Clear, amber

Emergency Overview : Solutions are eye and skin irritants, and prolonged or repeated contact may cause irritation. Mists are irritating to the skin, mucous membranes, and upper respiratory tract. Read the entire SDS for a more thorough evaluation of the hazards.

OSHA Hazard Communication Standard : This product has been evaluated and classified as defined by OSHA Hazard Communication Standard, 29CFR 1910.1200.

GHS Classification :

Eye Irritation (Category 2A Irritant)

Skin Irritation (Category 2 Irritant)

Acute toxicity (oral, Category 5)

Specific Target Organ Toxicity following single exposure (respiratory, Category 3)

Label Elements :

Signal Word : Warning



GHS Hazard Pictograms :

Exclamation Mark

Hazard Statements :

H303 May be harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

Precautionary Statements :

P102 Keep out of reach of children.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P270 Do not eat, drink or smoke when using this product.

P281 Use personal protective equipment as required.

P301+ P330 + P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

P304 + P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 IF eye irritation persists: Get medical advice/attention.

SAFETY DATA SHEET

Product Name : FSS ProGuard Green D3

Date Issued : April 21, 2016

Precautionary Statements, continued :

P302 + P351 IF ON SKIN Rinse cautiously with water for several minutes.

P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P501 Dispose of contents/container in accordance with local and state regulations.

Other hazards which do not result in classification :

None known. See Section 11 for Potential Health Hazards.

SECTION 3 : COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	CAS #	% (w/w)
Alkanolamine blend	mixture	15 - 20
Triethanolamine	102-71-6	1 - 5

Unlisted components are considered non-hazardous as per 29CFR1910.1200g2C. See section 15 for specific state right-to-know information if applicable.

SECTION 4 : FIRST AID MEASURES

Eye Contact: Immediately flush contacted area repeatedly with water for at least 15 minutes, holding eyelids open. Contact a physician for treatment.

Skin Contact: Immediately flush contacted area repeatedly with water for at least 15 minutes. If irritation persists, contact a physician for treatment. Clean contaminated clothing before reuse.

Inhalation: Inhalation is not an expected route of exposure. If respiratory irritation or distress occurs, remove victim to fresh air. If irritation persists, seek medical attention.

Ingestion: Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give 1-2 glasses of water to drink, if conscious and alert.

Notes to physician : treat symptomatically. No specific antidote available. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5 : FIRE FIGHTING MEASURES

Extinguishing Media: None required.

Fire Fighting Procedures: Use caution when fighting any fire. Adequate respiratory protection is essential.

Unusual Fire and Explosion Hazards: None known.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions : Use suitable protective equipment (See Section 8 : "Exposure controls / personal protection").

Steps to be taken in case material is released or spilled:

Small Spill: Absorb with suitable absorbent such as sand or vermiculite.

Large Spill: Stop leak at source and contain spill with dike made of inert material such as sand or diatomaceous earth. Pump material to suitable container for possible reuse or disposal.

SAFETY DATA SHEET

Product Name : FSS ProGuard Green D3

Date Issued : April 21, 2016

SECTION 7 : HANDLING AND STORAGE

Handling: Avoid breathing vapors and mists. Avoid direct or prolonged contact with skin and eyes. In cold weather, liquids may stratify and freeze. This does not damage the product. If freezing occurs, thaw and remix before using. Frozen material may be thawed in a warm room. Avoid localized overheating. Vent drums while heating. Mix thoroughly to assure homogeneity. Handle with care. Wash thoroughly after handling.

Storage Requirements: Keep container closed. Store in an area that is dry and well-ventilated, away from incompatible materials (see section 10). For Industrial and commercial use only!

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous Ingredient	ACGIH TLV (mg/m3) TWA	ACGIH TLV (mg/m3) STEL
alkanolamine blend	5	-
Triethanolamine	5	-

Engineering measures :

Ventilation / Local Exhaust : General room ventilation.

Ventilation / Mechanical Recommendations: None required.

Personal protective equipment :

Respiratory Protection: Not required for properly ventilated areas.

Skin Protection: Vinyl or rubber protective gloves.

Eye Protection: Goggles or face shield.

Other Protective Equipment: Vinyl apron (optional).

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Odor: Clear amber liquid, odor nil.

Water Solubility: complete

Specific Gravity: 1.01

Evaporation Rate(water=1): N/A

Vapor Density(air=1) : N/A

Flash Point : None

Flammable Limits: LEL = N/A UEL = N/A

pH (100%): 9.6 - 10.2

Boiling Point (°C) : 100+

% Volatile: N/A

Vapor Pressure(mmHg): N/A

Flash Point Method Used: N/A

SECTION 10 : STABILITY AND REACTIVITY

Hazardous Decomposition Products: None.

Chemical Stability: Stable.

Conditions to Avoid: Avoid contact with hot solutions, splashing solutions, prolonged skin contact.

Incompatibility with other Substances: Acids, oxidizers

Hazardous Polymerization: Will not occur.

SAFETY DATA SHEET

Product Name : FSS ProGuard Green D3

Date Issued : April 21, 2016

SECTION 11 : TOXICOLOGICAL INFORMATION

Potential Health Hazards (as mild alkaline or detergent blend) :

Inhalation: Inhalation of mists or dusts may cause irritation to respiratory tract. Symptoms from excessive inhalation or of concentrated product may include gasping or coughing and difficulty breathing. Excessive contact may cause damage to the nasal septum.

Skin Contact: May cause mild irritation. Concentrated or prolonged contact may cause irritation with redness and blistering.

Eye Contact: May cause mild irritation. Concentrated or prolonged contact may cause conjunctival edema and corneal destruction.

Ingestion: Swallowing may produce gastrointestinal upset. Symptoms from ingestion of large doses may include severe abdominal pain, vomiting, and diarrhea.

Toxicological Data: Toxicological studies were not performed on the blended product, although it is considered to be a severe eye irritant, and moderately irritating to the skin.

Toxicological Data (for Alkanolamine):

Oral LD50 (rat) : > 5000 mg/kg based on data from components or similar materials.

Dermal LD50(rabbit) : > 2000 mg/Kg based on data from components or similar materials.

Toxicological Data (as Triethanolamine):

Acute Toxicity/Effects

Oral LD50 (rat, male and female) = 6,400 mg/kg Method: OECD Test Guideline 401 GLP: no

Dermal LD50 = Dermal LD50 (rabbit) = > 2,000 mg/kg Method: OECD Test Guideline 402 GLP: no

Inhalation LC50 = No data available

Skin corrosion/irritation : Species: rabbit Method: OECD Test Guideline 404 Result: Irritating to skin. GLP: no

Serious eye damage/eye irritation : Species: rabbit Result: Irritating to eyes. Method: OECD Test Guideline 405

Respiratory or skin sensitization : Test Type: Maximization test Species: guinea pig Method: OECD Test Guideline 406 Result: Did not cause sensitisation on laboratory animals. GLP: yes

Germ cell mutagenicity :

Genotoxicity in vitro

- Test Type: Ames test Test species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471 Result: negative GLP: No data available

- Test Type: Sister chromatid exchange assay in mammalian cells

Test species: Chinese hamster ovary (CHO)

Metabolic activation: with and without metabolic activation Result: negative GLP: No data available

- Test Type: Chromosome aberration test in vitro Test species: Chinese hamster ovary (CHO)

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473

Result: negative GLP: No data available

Germ Cell Mutagenicity Assessment Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity: Carcinogenicity classification not possible from current data.

SAFETY DATA SHEET

Product Name : FSS ProGuard Green D3

Date Issued : April 21, 2016

Toxicological Data (as Triethanolamine), continued :

Reproductive toxicity :

Effects on fertility

- Species: rat, male and female Application Route: oral
Dose: 100, 300, 1000 mg/kg bw/day General Toxicity - Parent: NOAEL: > 1,000 mg/kg bw
Fertility: NOAEL: > 1,000 mg/kg Early Embryonic Development: NOAEL: 300 mg/kg
Symptoms: reduced litter size Method: OECD Test Guideline 421 GLP: yes

Effects on foetal development

- Species: rat Application Route: oral Dose: 100, 300, 1000 mg/kg bw/day
General Toxicity Maternal: NOAEL: > 1,000 mg/kg bw
Developmental Toxicity: NOAEL: 300 mg/kg bw GLP: yes

Reproductive Toxicity Assessment

- Fertility classification not possible from current data. Embryotoxicity classification not possible from current data.

Specific target organ toxicity - single exposure : No data available

Specific target organ toxicity - repeated exposure : No data available

Repeated dose toxicity

- Species: rat, male and female NOAEL: 1,000 mg/kg Application Route: Oral
Exposure time: 91 d Number of exposures: daily Dose: 0; 250; 500; 1000 mg/kg bw
Method: OECD Test Guideline 408 GLP: no
- Species: rat, male and female NOAEL: 0.5 mg/l Application Route: Inhalation
Exposure time: 28 d Number of exposures: 6 h/d, 5 d/wk Dose: 0.02; 0.1; 0.5 mg/l
Method: OECD Test Guideline 412 GLP: yes Symptoms: Local irritation
- Species: rat, male and female NOAEL: 125 mg/kg Application Route: Dermal
Exposure time: 90 d Number of exposures: 5 d/wk Dose: 125; 250; 500; 1000; 2000 mg/kg
Method: OECD Test Guideline 411 GLP: No data available Symptoms: Local irritation

Aspiration hazard : No aspiration toxicity classification

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicological Information: No data found for the blended product.

Ecotoxicological Information (as Alkanolamine):

Freshwater Invertebrates Toxicity : The acute EC50 is 10 - 100 mg/L based on component data

Bacteria Toxicity : The acute EC50 is 10 - 100 ppm based on component data

Potential to Bioaccumulate : 25% or greater of the components display no potential to bioconcentrate.

Ecotoxicological Information (as Triethanolamine):

Toxicity :

- Fish, LC50 = (Pimephales promelas (fathead minnow)): 11,800 mg/l Exposure time: 96 h
Test Type: flow-through test
- Crustacea, EC50 = (Ceriodaphnia dubia): 609.98 mg/l Exposure time: 48 h Test Type: static test
- Algae, EC50 = (Desmodesmus subspicatus): 512 mg/l End point: Growth rate Exposure time: 72 h
Test Type: static test
- Bacteria, EC50 = (activated sludge): 1,000 mg/l Exposure time: 3 h
Method: OECD Test Guideline 209

Persistence and degradability :

Biodegradability

- Result: Readily biodegradable. Biodegradation: 97 % Exposure time: 28 d
Method: OECD Test Guideline 301A
- Theoretical Oxygen Demand (ThOD) = 0.00204 mg/g

SAFETY DATA SHEET

Product Name : FSS ProGuard Green D3

Date Issued : April 21, 2016

Ecotoxicological Information (as Triethanolamine), continued :

Bioaccumulative potential :

- Bioaccumulation Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 3.9
- Partition coefficient: noctanol/water : Remarks: No data available

Mobility in Soil : No data available

Other adverse effects : No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal Method: Recycle, recovery and reuse of materials, where permitted, is encouraged as an alternate to disposal as a waste. Avoid discharge into open drains. Do not dump into sewers, on the ground, or into any body of water. Dispose of materials and packaging in accordance with local and state laws and regulations.

SECTION 14 : TRANSPORTATION INFORMATION

Australian Transportation Emergency Telephone Number: +61 3 5176 1362

US Transportation Emergency Telephone Number: 3E 24 hour number : + 001 866 302-6855*

*Please refer to c# referenced in section 1 of this sds.

UN Number / DOT Proper Shipping Name / DOT Hazard Class /Packing Group / DOT Label & other information: No UN number applicable NOT REGULATED BY DOT (mildly alkaline cleaning liquid NOIBN)

SECTION 15 : REGULATORY INFORMATION

INTERNATIONAL REGULATIONS :

Inventory Status :

AICS : All chemicals are listed in the Australian Inventory of Chemical Substances

TSCA (Toxic Substances Control Act) Status : TSCA (United States) The intentional ingredients of this product are listed.

SARA 313 Components - 40 CFR 372.65 (United States): This product does not contain any chemicals subject to reporting requirements

CERCLA RQ - 40CFR302.4(a) (United States) :

<u>Component</u>	<u>RQ (lbs)</u>
Alkanolamine	3412 gal.

SAFETY DATA SHEET

Product Name : FSS ProGuard Green D3

Date Issued : April 21, 2016

Additional Inventory Status Information :

as Alkanolamine: Norway registration number 12554; Danish Registration number 935499

as Triethanolamine (CAS#102-71-6):

Triethanolamine is listed on the following inventories : Canadian Domestic Substance List (DSL), European Inventory of Existing Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), Australian Inventory of Chemical Substances (AICS), Japan Ministry of International Trade and Industry (MITI) inventory.

WHMIS Information (Canada) : the classification for Triethanolamine is : Class D, Div 2, Subdiv B : Irritant

SECTION 16 : OTHER INFORMATION

NFPA Rating : HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0

NFPA hazard degree designation 704: 4 = extreme, 3 = high, 2 = moderate, 1 = slight, 0 = none.

Revision Date : 20 April, 2016

Information and data compiled to compose this SDS is correct to the best of our knowledge as of the printed date, and is offered solely for your consideration, investigation, and verification.

End of SDS