# **Gulf States**

1540 Schillinger Rd N Semmes, AL 36575 251-649-3936 Fax 251-649-3966



Ready Mix is a subsidiary of Cemex

# Mix Design Submittal

Project Number:	Empire			
Project Description:	The Living Building	g @ GT		
Concrete Supplier:	Gulf States Ready-Mix			
Mix Number:	3020XA51		Specified Strength:	3000psi @ 28 Days
Specified Slump:	3 +/-1	Inches	Specified Air Content	5.5+/-1.5%
Mid Range Water Red	6 +/- 1"	*Optional*		
Usage:	Pile Cap	os, Grade Beams, Pedestals		

Material Properties and Source

Material	Туре	Class	Source	Specific Gravity
Portland Cement	1/11		Argos	3.15
Fly Ash		F	Headwaters	2.43

Name	Supplier	Dosage, fl oz/yd <sup>3</sup>
ZYLA 610	W. R. Grace	14
Daravair 1000	W. R. Grace	2
	ZYLA 610	ZYLA 610 W. R. Grace

Note: Admixture dosage rates will be adjusted to compensate for environmental and field conditions.

Supplier	Aggregate Size	Туре	Sp. Gr. SSD
P & R Sand And Grave	#67 River Gravel	Coarse	2.59
P & R Sand And Grave	Sand	Natural	2.61

**Batch Quantities** 

Material	Quantities lb/yd <sup>3</sup>	SSD	Absolute Volume yd <sup>3</sup>
Cement, lb		376	1.91
Fly Ash, lb		94	0.48
Slag, lb			
Mix Water, Ib		242	3.88
Coarse Aggr., lb		1835	11.35
Fine Aggr., lb		1260	7.74
Air Content, %		6.0	1.62
AEA, oz		2.0	
Water Reducer, oz		14	
HRWR, oz		20	
Total		3807	27.0

Water / cementitio Unit Weight	Vater / cementitious material ratio: nit Weight		-		
Designed by:	Jamie Lyles, P.E.		Date:	6/20/2017	
Title:	Sales Professional				
Organization:	Gulf States Ready-Mix				



May 23, 2017

Jamie Lyles, P.E. Delta Industries, Inc.

Gulf States Ready Mix, AL

Plant Locations: Mobile, Creola, Loxley, Foley

Reference: Concrete Mix Design Submittal - Gulf State Park Interpretive Center.

Dear Mr. Lyles,

Argos Cements do not contain the following Red List materials in any measurable quantity.

Red List (Imperative 10): The Project cannot contain any of the following Red List materials or chemicals:

- 1. Alkylphenols
- 2. Asbestos
- 3. Bisphenol A (BPA)
- 4. Cadmium
- 5. Chlorinated Polyethylene and Chlorosulfonated Polyethlene
- 6. Chlorobenzenes
- 7. Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFCs)
- 8. Chloroprene (Neoprene)
- 9. Chromium VI
- 10. Chlorinated Polyvinyl Chloride (CPVC)
- 11. Formaldehyde (added
- 12. Halogenated Flame Retardants (HFRs)
- 13. Lead (added)
- 14. Mercury
- 15. Perfluorinated Compounds (PFCs)
- 16. Polychlorinated Biphenyls (PCBs)
- 17. Phthalates
- 18. Polyvinyl Chloride (PVC)
- 19. Polyvinylidene Chloride (PVDC)
- 20. Short Chain Chlorinated Paraffins
- 21. Wood treatments containing Creosote, Arsenic, or Pentachlorophenol
- 22. Volatile Organic Compounds (VOCs) in wet-applied products

Stephen D. Wilcox

Cement Technical Director

tester D. Willox

Argos USA LLC

swilcox@argos-us.com

678-451-8657

CC

R. Betz <u>nbetz@argos-us.com</u>

Argos Cement USA 3015 Windward Plaza Windward Fairways II Suite 300 Alpharetta, GA 30005

# SAFETY DATA SHEET

# **Argos Portland Cement**



#### 1. IDENTIFICATION

Product Identifier Portland Cement (cement)

Synonyms: Cement, Portland Cement, Hydraulic Cement, Oil Well Cement, Trinity® White Cement, Antique

White Cement, Portland Limestone Cement, \* Portland Cement Type I, I/II MH, IA, IL, II, IIA, II L.A., II

MH, III,

IIIA, IV, IVA, V, VA, 10, 20, 30, 40, 50, GU, GUL, MS, MH, HE, LH, HS, OWH, OWG Cement,

OWG Class G HSR, Florida White, Florida Portland Cement Type I/II MH, III and White Portland Type I.

Intended use of the

product: Cement is used as a binder in concrete and mortars that are widely used in construction.

Contact: Argos Cement

3015 Windward Plaza

Suite 300

Alpharetta, GA 30005 mheaton@argos-us.com

Contact Person: Michael J. Heaton

Contact Information: CHEMTREC EMERGENCY TELEPHONE NUMBER (24 hrs): (800)424-9300

COMPANY CONTACT (business hours): (678)368-4300 (8 AM-4 PM EST)

#### 2. HAZARD IDENTIFICATION

#### According to OSHA 29 CFR 1910.1200 HCS

# Classification of the Substance or Mixture

Classification (GHS-US): Skin Corrosion/Irritation Category 1 H314 Skin Sensitization Category 1 H317 Serious Eye Damage/Eye Irritation Category 1 H318 STOT SE Category 3 H335 Carcinogenicity Category 1A H350

#### Labeling Elements



Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H314 - Causes severe skin burns and eye damage.

H318 – Causes serious eye damage. H317 – May cause an allergic skin reaction. H335 – May cause respiratory irritation.

H350 – May cause cancer.

Precautionary Statements (GHS-US) :

Page 1 of 13 January 2016

# SAFETY DATA SHEET

# **Argos Portland Cement**



Prevention P201 - Obtain special instructions before use.

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

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P264- Wash thoroughly after handling.

P271- Use only outdoors or in a well-ventilated area.

P272- Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response P301+P330+P331- If swallowed: Rinse mouth. Do not induce vomiting.

P303+361+353 - If on skin (or hair): Take off immediately all contaminated clothing.

Rinse with water/shower.

P304+P340- If inhaled: Remove person to fresh air and keep comfortable for

breathing

P305+P351+P338- If in eyes: Rinse cautiously with water for several minutes.

Remove contact lenses if present and easy to do – continue rinsing. P308+P313- If exposed or concerned: Get medical attention/advice.

P310-Immediately call a poison center or doctor

P333+P313- If skin irritation or a rash occurs: Get medical advice/attention.

P363- Wash contaminated clothing before reuse.

Storage P403+P233- Store in a well-ventilated place. Keep container tightly closed

Disposal P501- Dispose of contents/container in accordance with

local/regional/national/international regulations.

Hazards Not Otherwise Classified: None

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Chemical Composition Information

Name	Product Identifier (Cas#)	% (w/w)	Classification
Portland cement	65997-15-1	50-98	Skin Irr. 1C (H314)
			Eye Corr. 1 (H318)
			Skin Sens. 1 (H317)
			STOT SE 3 ( H335)
Limestone	1317-65-3	0-15	Not Classified
Calcium sulfate dihydrate	13397-24-5	2-10	Not Classified
Calcium oxide	1305-78-8	0-5	Skin Irr. 1C (H314)
			Eye Irr. 1 ( H318)
			STOT SE 3 (H335)
Magnesium oxide	1309-48-4	0-4	Skin Irr. 3 (H316)
			Eye Irr. 2 (H320)
			STOT SE 3 (H335)
Quartz	14808-60-7	<0.2	Carc. 1A (H350)
			STOT RE 1 ( H372)

The exact percentage (concentration) of the composition has been withheld as proprietary.

Page 2 of 13 January 2016



May 22, 2017 Ref# 170522 1140 Delta Miller

To: Jamie Lyles, PE
Delta Industries, Inc.

Gulf States Ready Mix, AL

Regarding: Gulf State Park Interpretive Center Red List Building Materials

Dear Jim:

Fly ash is just one of the ingredients used to develop a concrete product on this project.; therefore, using the Red List Building Materials restrictions on fly ash alone is not necessarily applicable. When fly ash is used as a replacement of cement, fly ash is chemically encapsulated forming a calcium silicate hydrate: Fly ash becomes a different product. Yes, some of the items listed in the Red List LBC are present in fly ash, but when used as a cement substitute in a concrete product, are not available to leach into the environment. Please refer to the EPA's Frequent Questions about the Beneficial Use of Fly Ash located at <a href="https://www.epa.gov/coalash/frequent-questions-about-beneficial-use-coal-ash">https://www.epa.gov/coalash/frequent-questions-about-beneficial-use-coal-ash</a>

Fly ash is a product that is collected from coal combustion power generators, collected in precipitators and pneumatically transferred to storage silos. There are no manufacturing processes attached to this pre-consumer byproduct of coal generated power. Fly ashes are used in the manufacture of concrete and wallboard, and EPA supports responsible use of coal fly ash in this manner ( <a href="https://www.epa.gov/coalash/frequent-questions-about-beneficial-use-coal-ash">https://www.epa.gov/coalash/frequent-questions-about-beneficial-use-coal-ash</a>)

Trace amounts, not intentionally added.

Since nothing is added to this material, we do not have an HPD for all intentionally added ingredients. We can however supply a SDS, TLCP metals analysis and a C618 chemical and physical analysis (attached). If the owners of this project are still concerned about the Red List LBC items found in fly ash, it is our suggestion they have the final product tested vs. the individual ingredients to make the product: Especially since the individual ingredients chemically react to form an entirely different product chemically and physically. If there are questions and/or concerns, please contact us at your convenience.

Respectfully,

by

Craig Wallace
CN = Craig Wallace email
own C1 = Wallace@headwaters.
com C = US O =
Headwaters Resources
OU = Technical Manager
2017.05.22 11:48:41 0500'

Craig Wallace Technical Manager



# Materials Testing & Research Facility

2650 Old State Hwy 113 Taylorsville, GA 30178 770-684-0102

# ASTM C618 / AASHTO M295 Testing of E.C. Gaston Fly Ash

Sample Date:

10/15 - 10/25/16

Report Date:

12/8/2016

Sample Type:

3200-ton

MTRF ID:

2803GT

Sample ID:

ASTM	Limit	AAS

AASHTO Limit

Chemical Analysis	Results	Class F/C	Class F/C
Silicon Dioxide (SiO2)	52.02 %		
Aluminum Oxide (Al2O3)	22.71 %		
Iron Oxide (Fe2O3)	14.52 %		
Sum (SiO2+Al2O3+Fe2O3)	89.25 %	70.0/50.0 min	70.0/50.0 min
Sulfur Trioxide (SO3)	0.66 %	5.0 max	5.0 max
Calcium Oxide (CaO)	3.02 %		
Magnesium Oxide (MgO)	1.00 %		
Sodium Oxide (Na2O)	0.96 %		
Potassium Oxide (K2O)	2.64 %		
Sodium Oxide Equivalent (Na2O+0.658K2O)	2.70 %		
Moisture	0.07 %	3.0 max	3.0 max
Loss on Ignition	2.12 %	6.0 max	5.0 max

# Physical Analysis

Sidal Allalysis				
Fineness, % retained on 45-µm sieve	16.99	%	34 max	34 max
Strength Activity Index - 7 or 28 day requirement				
7 day, % of control	89	%	75 min	75 min
28 day, % of control	96	%	75 min	75 min
Water Requirement, % control	95	%	105 max	105 max
Autoclave Soundness	0.00	%	0.8 max	0.8 max
Density	2.47			

Headwaters Resources certifies that pursuant to current ASTM C618 protocol for testing, the test data listed herein was generated by applicable ASTM methods and meets the requirements of ASTM C618 and Florida DOT 929 specification.

Doug Rhodes, CET Facility Manager





# Class F Fly Ash

SDS Number: 002 Revision Date: 5/18/15

# **Safety Data Sheet**

# Section 1 Identification of the Substance and of the Supplier

#### 1.1 Product Identifier

Product Name/Identification:	ASTM Class F Fly Ash
Synonyms:	Coal Fly Ash, Pozzolan
Product Code:	N/A
Formula:	UVCB Substance

# 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses:	Cement Replacement, Concrete Additive, Inert Filler
Uses Advised Against:	Any uses not meeting appropriate engineering specifications

# 1.3 Details of the Supplier of the SDS

Manufacturer/Supplier:	Headwaters Resources, Inc.			
Street Address:	10701 South Riverfront Parkway			
City, State and Zip Code:	South Jordan, UT 84095			
Customer Service Telephone:	801.984.9400			
Website Address:	flyash.com			

# 1.4 Emergency Telephone Number

Emergency Phone Number:	877.347.8096				
Hours Available:	24 hours/7 days a week				

# Section 2 Hazards Identification

#### 2.1 Classification of the Substance

GHS Classification(s) according to OSHA Hazard Communication Standard (29 CFR 1910.1200):

- STOT-SE Category 3 (Respiratory Irritation)
- STOT-RE Category 2

Preparation Date: 5/18/15 Page 1 of 12



# Class F Fly Ash

SDS Number: 002

Revision Date: 5/18/15

#### 2.2 Label Elements

Labeling according to 29 CFR 1910.1200 Appendices A, B and C*					
Hazard Pictogram(s)					
Signal Word	Danger				
Hazard Statement(s)	May cause respiratory irritation.  May cause damage to lungs after repeated/prolonged exposure via inhalation.				
Precautionary Statement(s)	Do not breathe dust.  Use outdoors or in a well ventilated area.  If inhaled: Remove to fresh air and keep comfortable for breathing.  Get medical advice/attention if you feel unwell.  Store in a secure area.  Dispose of product in accordance with local/national regulations.				

<sup>\*</sup> Fly ash and other coal combustion products (CCPs) are UVCB substances (substance of unknown or variable composition or biological). Various CCPs, noted as Ashes; Ash; Ash residues; Ashes, residues, bottom; bottom ash; bottom ash residues; waste solids, ashes under TSCA are defined by the US EPA as: "The residuum from the burning of a combination of carbonaceous materials. The following elements may be present as oxides: aluminum, calcium, iron, magnesium, nickel, phosphorus, potassium, silicon, sulfur, titanium, and vanadium." Ashes, including fly ash and fluidized bed combustion ash, are identified by CAS number 68131-74-8. The exact composition of the ash is dependent on the fuel source and flue additives composed of a large number of constituents. The classification of the final substance is dependent on the presence of specific identified oxides as well as other trace elements.

#### 2.3 Other Hazards

Listed Carcinogens: Respirable Crystalline Silica

IARC: Yes NTP: Yes OSHA: No Other: No

# Section 3 Composition/Information on Ingredients

Substance	CAS No.	Percentage (%)	GHS Classification		
Aluminosilicates	Various: See note 1	70-95	Single Exposure STOT, Category 3		
Crystalline Silica	14808-60-7	<10	<10 Repeat Dose STOT, Category 2		
Silica, crystalline respirable (RCS)	14808-60-7	See note 2	Repeat Dose STOT, Category 2		
Calcium oxide (CaO) 1305-78-8		<2%	Skin Irritant Category 2 Eye irritant Category 2B		

Preparation Date: 5/18/15 Page 2 of 12



# Class F Fly Ash

SDS Number: 002

Revision Date: 5/18/15

Substance	CAS No.	Percentage (%)	GHS Classification		
Manganese dioxide (MnO <sub>2</sub> )	1313-13-9	<2%	Skin Irritant Category 2 Eye irritant Category 2B		
Phosphorus pentoxide (P <sub>2</sub> O <sub>5</sub> )	1314-56-3	<2%	Skin Irritant Category 2 Eye irritant Category 2B		
Potassium oxide (K <sub>2</sub> O)	12136-45-7	<2%	Skin Irritant Category 2 Eye irritant Category 2B		
Magnesium sulfate	7487-88-9	<2%	Skin Irritant Category 2 Eye irritant Category 2B		

<sup>1.</sup> Aluminosilicates may be in the form of mullite (CAS#1302-93-8); aluminosilicate glass, or pozzolans (CAS#71243-67-9). The form is dependent on the source of the coal and or the process used to create the CCP. Pulverized coal combustion would be more likely to create high levels of pozzolans. Aluminosilicates may have inclusions of calcium, titanium, iron, potassium, phosphorus, magnesium and other metal oxides.

2. RSC in the CCP has not been determined.

# Section 4 First Aid Measures

# 4.1 Description of First Aid Measures

Inhalation	If product is inhaled and irritation of the nose or coughing occurs, remove person to from air. Get medical advice/attention if respiratory symptoms persist.					
Skin Contact	If skin exposure occurs, wash with soap and water.					
Eye Contact	If product gets into the eye, rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek medical attention/advice if irritation occurs or persists.					
Ingestion	No specific first aid measures are required.					

# 4.2 Most Important Health Effects, Both Acute and Delayed

Acute Effects	Direct exposure may cause respiratory irritation, eye irritation and skin irritation. The product dust can dry and irritate the skin and cause dermatitis and can irritate eyes and skin through mechanical abrasion.
Chronic Effects	Chronic exposure may cause lung damage from repeated exposure. Chronic inhalation of dusts containing respirable crystalline silica may result in silicosis.

# 4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Seek first aid or call a doctor or Poison Control Center if contact with eyes occurs and irritation remains after rinsing.

Preparation Date: 5/18/15 Page 3 of 12

# <u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive Pensacola, FL 32514 Tel: (850)474-1001

TestAmerica Job ID: 400-132925-1 Client Project/Site: Miller TCLP 2017

#### For:

Headwaters Resources Incorporated 2650 Old State Highway 113 Taylorsville, Georgia 30178

Attn: Christy Sieg

Mark Swefford

Authorized for release by: 1/30/2017 2:12:13 PM

Mark Swafford, Project Manager I (850)471-6207

mark.swafford@testamericainc.com

----- LINKS -----

Review your project results through

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**Have a Question?** 



**Visit us at:**www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

# **Definitions/Glossary**

Client: Headwaters Resources Incorporated

Project/Site: Miller TCLP 2017

TestAmerica Job ID: 400-132925-1

# Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.					
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis					
%R	Percent Recovery					
CFL	Contains Free Liquid					
CNF	Contains no Free Liquid					
DER	Duplicate error ratio (normalized absolute difference)					
Dil Fac	Dilution Factor					

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC Decision level concentration
MDA Minimum detectable activity
EDL Estimated Detection Limit
MDC Minimum detectable concentration

MDC Minimum detectable concent
MDL Method Detection Limit

ML Minimum Level (Dioxin)
NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TestAmerica Pensacola

# **Case Narrative**

Client: Headwaters Resources Incorporated

Project/Site: Miller TCLP 2017

TestAmerica Job ID: 400-132925-1

Job ID: 400-132925-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-132925-1

#### Comments

No additional comments.

#### Receipt

The sample was received on 1/20/2017 9:08 AM. The temperature of the cooler at receipt was 19.7° C.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

9

3

# **Client Sample Results**

Client: Headwaters Resources Incorporated

Project/Site: Miller TCLP 2017

TestAmerica Job ID: 400-132925-1

Lab Sample ID: 400-132925-1

**Matrix: Solid** 

Client Sample ID: 104MR FLY ASH
D. (. O. II (. I. 04/40/47 40 00

Date Collected: 01/18/17 10:00 Date Received: 01/20/17 09:08

Method: 6020 - Metals	s (ICP/MS) - TCLP								
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.017		0.0063		mg/L		01/26/17 13:07	01/27/17 12:52	5
Barium	1.7		0.013		mg/L		01/26/17 13:07	01/27/17 12:52	5
Cadmium	<0.013		0.013		mg/L		01/26/17 13:07	01/27/17 12:52	5
Chromium	0.32		0.013		mg/L		01/26/17 13:07	01/27/17 12:52	5
Lead	< 0.0063		0.0063		mg/L		01/26/17 13:07	01/27/17 12:52	5
Selenium	0.084		0.0063		mg/L		01/26/17 13:07	01/27/17 12:52	5
Silver	<0.0013		0.0013		mg/L		01/26/17 13:07	01/27/17 12:52	5
- Method: 7470A - Merc	cury (CVAA) - TCLP								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0016		0.0016		mg/L		01/26/17 09:35	01/27/17 13:49	1

TestAmerica Pensacola



62 Whittemore Avenue Cambridge, Massachusetts 02140 USA

GCPat.com

Jason D. Wimberly, PE, MCE
Technical Services Mgr, Concrete-SE Region
+1 704 995 1636 Mobile
+1 864 760 1340 Facsimile
Jason.Wimberly@gcpat.com

June 2, 2017

Mr. Jamie Lyles, P.E.
Delta Industries, Inc.
Gulf States Ready Mix Division - Alabama
100 W. Woodrow Wilson Dr.
Jackson, MS 39215

RE: Red List Certification - Gulf State Park Interpretive Center - Rev 1

#### Dear Mr. Lyles:

We recognize that the Gulf State Park Interpretive Center is striving for Living Building Challenge Material Petal Certification. We confirm that the chemical admixtures currently supplied to the Foley plant by GCP Applied Technologies (GCP) listed below, and all of the raw materials used/supplied to manufacture them, do not include any Red List Ingredients:

- Alkylphenols
- Asbestos
- Bisphenol A (BPA)
- Cadmium
- Chlorinated Polyethylene and Chlorosulfonated Polyethylene
- Chlorobenzenes
- Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFCs)
- Chloroprene (Neoprene)
- Chromium VI
- Chlorinated Polyvinyl Chloride (CPVC)
- Formaldehyde (added)
- Halogenated Flame Retardants (HFRs)
- Lead (added)

- Mercury
- Polychlorinated Biphenyls (PCBs)
- Perfluorinated Compounds (PFCs)
- Phthalates
- Polyvinyl Chloride (PVC)
- Polyvinylidene Chloride (PVDC)
- Short Chain Chlorinated Paraffins
- Wood treatments containing Creosote, Arsenic or Pentachlorophenol
- Volatile Organic Compounds (VOVs) in wet applied products exceeding the South Coast Air Quality Management District (SCAQMD) Rule 1168 or CARB 2007 Suggested Control Measures (SCM) for Architectural Coatings

The admixtures covered by this letter are Daravair 1000, ADVA 140M and ZYLA 610.

Detailed compositional information, beyond what is available in our published MSDS, is part of GCP's intellectual property, and is considered confidential information. As a result, we have historically not shared such information without a signed confidentiality agreement.

Should it become absolutely necessary to disclose such information, we will need to have in place Non-Disclosure Agreements (NDAs) signed by corporate officers of all parties that have a need to receive or have access to the confidential information.



62 Whittemore Avenue Cambridge, Massachusetts 02140 USA

GCPat.com

Jason D. Wimberly, PE, MCE

Technical Services Mgr, Concrete-SE Region +1 704 995 1636 Mobile +1 864 760 1340 Facsimile Jason.Wimberly@gcpat.com

I certify that I am personally familiar with the facts stated above, qualified and authorized to make official statements, with regards to matters such as requested, on behalf of my company.

Sincerely,

Jason D. Wimberly, PE, MCE

ecc: Angel Abelleria, GCP

Terry Harris, GCP Rob Bailey, GCP



Printing date 02/17/2016 Version Number 1.2 Reviewed on 02/08/2016

1 Identification

**Product identifier** 

Trade name: DARAVAIR 1000

SDS ID Number: 60050

Relevant identified uses of the substance or mixture, and uses advised against

Specialty construction product. Not intended for other uses

Details of the supplier of the safety data sheet

Manufacturer/Supplier: GCP Applied Technologies 62 Whittemore Avenue Cambridge, MA 02140 USA

GCP Canada, Inc. 294 Clements Road W. Ajax, Ontario L1S 3C6 Canada

**Information department:** 

Environmental Health & Safety USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours)

**Transport Emergency:** Chemtrec +1-800-424-9300 (24 hours)

# 2 Hazard(s) identification

# Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

#### **Label elements:**

Hazard pictograms Not applicable.

Not applicable.

**Hazard statements** Not applicable. **NFPA ratings (scale 0 - 4)** 



Health = 1 Fire = 1 Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = \*1 Flammability = 1 Reactivity = 0

(Cont. on page 2)

• USGHS

Page 1/8

Printing date 02/17/2016 Version Number 1.2 Reviewed on 02/08/2016

Trade name: DARAVAIR 1000

(Cont. from page 1)

#### Other hazards

Results of PBT and vPvB assessment

**PBT:** Not applicable. **vPvB:** Not applicable.

# **3 Composition/information on ingredients**

Chemical characterization: Mixtures

Hazardous components: Not applicable.

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

# 4 First-aid measures

#### **Description of first aid measures**

#### **General information:**

Get medical advice/attention if you feel unwell.

#### After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

# After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

#### After eye contact:

Rinse opened eye for several minutes under running water.

Rinse cautiously with water for several minutes.

#### After swallowing:

Wash out mouth with water

Rinse mouth.

Do not induce vomiting; immediately call for medical help.

Never give anything by mouth to an unconscious person.

#### **Information for doctor:**

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

# 5 Fire-fighting measures

Special hazards arising from the substance or mixture No further relevant information available.

**Additional information** Collect contaminated fire fighting water separately. It must not enter the sewage system.

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1 Identification

**Product identifier** 

Trade name: **ZYLA 610**SDS ID Number: 60196

Relevant identified uses of the substance or mixture, and uses advised against

Specialty construction product. Not intended for other uses

Details of the supplier of the safety data sheet

**Manufacturer/Supplier:**GCP Applied Technologies
62 Whittemore Avenue

Cambridge, MA 02140 USA

GCP Canada, Inc. 294 Clements Road W. Ajax, Ontario L1S 3C6 Canada

**Information department:** 

Environmental Health & Safety USA: +1-617-876-1400 (24 hours)

+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts

CAN: 1-905-683-8561 (24 hours)

**Transport Emergency:** Chemtrec +1-800-424-9300 (24 hours)

# 2 Hazard(s) identification

# Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

#### **Label elements:**

Hazard pictograms Not applicable.

Not applicable.

**Hazard statements** Not applicable.

NFPA ratings (scale 0 - 4)



 $\begin{aligned} & \text{Health} = 1 \\ & \text{Fire} = 1 \\ & \text{Reactivity} = 0 \end{aligned}$ 

#### HMIS-ratings (scale 0 - 4)



Health = 1 Flammability = 1 Reactivity = 0

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Trade name: ZYLA 610

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#### Other hazards

#### Results of PBT and vPvB assessment

**PBT:** Not applicable. **vPvB:** Not applicable.

#### 3 Composition/information on ingredients

#### **Chemical characterization: Mixtures**

#### **Hazardous components:**

102-71-6 Triethanolamine

2.0-5.0%

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

# 4 First-aid measures

#### **Description of first aid measures**

#### **General information:**

Get medical advice/attention if you feel unwell.

#### After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

#### After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

#### After eye contact:

Rinse opened eye for several minutes under running water.

Rinse cautiously with water for several minutes.

Seek immediate medical advice.

# After swallowing:

Wash out mouth with water

Rinse mouth.

Do not induce vomiting; immediately call for medical help.

Never give anything by mouth to an unconscious person.

#### **Information for doctor:**

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

# **5** Fire-fighting measures

Special hazards arising from the substance or mixture No further relevant information available.

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