



## Safety Data Sheet

prepared to UN GHS Revision 3

### 1. Identification of the Substance/Mixture and the Company/Undertaking

- 1.1 **Product Identifier** 215-CR-B-1GAL **Revision Date:** 05/23/2018  
**Product Name:** Flowcoat CR Hardener B **Supersedes Date:** 04/18/2018
- 1.2 **Relevant identified uses of the substance or mixture and uses advised against** Component of multicomponent industrial coatings - Industrial use.
- 1.3 **Details of the supplier of the safety data sheet**
- Manufacturer:** Flowcrete North America, Inc.  
616 Spring Hill Drive, Suite 100  
Spring, TX 77386  
americas@flowcrete.com  
www.flowcreteamericas.com  
Tel: (936) 539-6700  
Fax: (936) 539-6701
- Datasheet Produced by:** Mims, Robert - americas@flowcrete.com
- 1.4 **Emergency telephone number:** CHEMTREC 1-800-424-9300 (Inside US)  
CHEMTREC +1 703 5273887 (Outside US)

### 2. Hazard Identification

#### 2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 2  
Hazardous to the aquatic environment, Chronic, category 3  
Reproductive Toxicity, category 2  
Skin Corrosion, category 1  
Skin Sensitizer, category 1

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Danger

### Named Chemicals on Label

paratertiarybutylphenol, Benzyl alcohol, benzene-1, 3-dimethanamine, 3-Aminomethyl-3,5,5-trimethylcyclohexylamine, cashew nutshell oil, trimethyl 1-1,6-hexanediamine

### HAZARD STATEMENTS

Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Skin Corrosion, category 1	H314-1	Causes severe skin burns and eye damage.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Acute Toxicity, Inhalation, category 2	H330-2	Fatal if inhaled.
Reproductive Toxicity, category 2	H361	Suspected of damaging fertility or the unborn child.
Hazardous to the aquatic environment, Chronic, category 3	H412	Harmful to aquatic life with long lasting effects.

### PRECAUTION PHRASES

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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 so. Continue rinsing.
P308+313	IF exposed or concerned: Get medical advice/attention.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P403+233	Store in a well-ventilated place. Keep container tightly closed.

## 2.3 Other hazards

No Information

### Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

## 3. Composition/Information On Ingredients

### 3.2 Mixtures

#### Hazardous Ingredients

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>%</u>
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100-51-6	Benzyl alcohol	10-25
2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	10-25
1477-55-0	benzene-1, 3-dimethanamine	10-25
98-54-4	paratertiarybutylphenol	2.5-10
25620-58-0	trimethyl 1-1,6-hexanediamine	2.5-10
8007-24-7	cashew nutshell oil	2.5-10

<u>CAS-No.</u>	<u>GHS Symbols</u>	<u>GHS Hazard Statements</u>	<u>M-Factors</u>
100-51-6	GHS07	H302-312-319-332	0
2855-13-2	GHS05-GHS07	H302-312-314-317-412	0
1477-55-0	GHS05-GHS06	H302-312-314-317-330-412	0
98-54-4	GHS05-GHS07-GHS08-GHS09	H315-318-335-361-411	0
25620-58-0	GHS05-GHS07	H302-314-317-412	0
8007-24-7	GHS05-GHS07	H302-312-315-317-318	0

**Additional Information:** The text for GHS Hazard Statements shown above (if any) is given in Section 16.

## 4. First-aid Measures

### 4.1 Description of First Aid Measures

**GENERAL NOTES:** When symptoms persist or in all cases of doubt seek medical advice.

**AFTER INHALATION:** Move to fresh air. Consult a physician after significant exposure.

**AFTER SKIN CONTACT:** Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**AFTER EYE CONTACT:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

**AFTER INGESTION:** Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

### Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

Causes severe burns. Harmful in contact with skin and if swallowed. Irritating to eyes and respiratory system.

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

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

## 5. Fire-fighting Measures

### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

**FOR SAFETY REASONS NOT TO BE USED:** Alcohol, Alcohol based solutions, any other media not listed above.

### 5.2 Special hazards arising from the substance or mixture

No Information

### 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. High volume water jet. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

### 6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

**6.3 Methods and material for containment and cleaning up**

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

**6.4 Reference to other sections**

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

**7. Handling and Storage****7.1 Precautions for safe handling**

**INSTRUCTIONS FOR SAFE HANDLING:** Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist.

**PROTECTION AND HYGIENE MEASURES:** Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

**7.2 Conditions for safe storage, including any incompatibilities**

**CONDITIONS TO AVOID:** Direct sources of heat.

**STORAGE CONDITIONS:** Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

**7.3 Specific end use(s)**

No specific advice for end use available.

**8. Exposure Controls/Personal Protection****8.1 Control parameters****Ingredients with Occupational Exposure Limits (US)**

<b>Name</b>	<b>CAS-No.</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>
Benzyl alcohol	100-51-6		
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2		
benzene-1, 3-dimethanamine	1477-55-0		
paratertiarybutylphenol	98-54-4		
trimethyl 1-1,6-hexanediamine	25620-58-0		
cashew nutshell oil	8007-24-7		

**FURTHER INFORMATION:** Refer to the regulatory exposure limits for the workforce enforced in each country.

**8.2 Exposure controls****Personal Protection**

**RESPIRATORY PROTECTION:** Respirator with filter for organic vapor.

**EYE PROTECTION:** Safety glasses.

**HAND PROTECTION:** Impervious gloves. Long sleeved clothing. Remove and wash contaminated clothing before re-use.

**OTHER PROTECTIVE EQUIPMENT:** No Information

**ENGINEERING CONTROLS:** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

**9. Physical and Chemical Properties****9.1 Information on basic physical and chemical properties**

**Appearance:**

Light yellow - clear

<b>Physical State</b>	Liquid
<b>Odor</b>	Amine like
<b>Odor threshold</b>	Not determined
<b>pH</b>	11-12
<b>Melting point / freezing point (°C)</b>	Not determined
<b>Boiling point/range (°C)</b>	302 F - N.D.
<b>Flash Point, (°F / °C)</b>	>200 F
<b>Evaporation rate</b>	Not determined
<b>Flammability (solid, gas)</b>	Not determined
<b>Upper/lower flammability or explosive limits</b>	999 - 0
<b>Vapour Pressure</b>	Not determined
<b>Vapour density</b>	ca. 1.05 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined
<b>Solubility in / Miscibility with water</b>	Limited
<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Auto-ignition temperature (°C)</b>	Not determined
<b>Decomposition temperature (°C)</b>	Not determined
<b>Viscosity</b>	Not determined
<b>Explosive properties</b>	N/A
<b>Oxidising properties</b>	Not determined

**9.2 Other information**

<b>VOC Content g/l:</b>	12
<b>Density (lbs./gal)</b>	8.63

## 10. Stability and Reactivity

**10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

**10.2 Chemical stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

Hazardous polymerisation may occur.

**10.4 Conditions to avoid**

Direct sources of heat.

**10.5 Incompatible materials**

Strong oxidizing agents.

**10.6 Hazardous decomposition products**

Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

**Acute Toxicity:**

**Oral LD50:** No information

**Inhalation LC50:** No information

**Irritation:** No information available.

**Corrosivity:** Causes burns. Dehydrating on skin. Eye contact may cause irreversible damage.

**Sensitization:** Prolonged or repeated skin contact may result in allergic eczema.

**Repeated dose toxicity:** No information available.

**Carcinogenicity:** No information available.

**Mutagenicity:** No information available.

**Toxicity for reproduction:** No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
100-51-6	Benzyl alcohol	1230 mg/kg, rat	2000 mg/kg, rabbit	1000 ppm, 8 hours rat
2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	500 mg/kg oral		
1477-55-0	benzene-1, 3-dimethanamine	1514 mg/kg, oral		
98-54-4	paratertiarybutylphenol	>2000 mg/kg	5600 mg/kg	
25620-58-0	trimethyl 1-1,6-hexanediamine	910 mg/kg, oral, rat		

**Additional Information:**

No Information

## 12. Ecological Information

### 12.1 Toxicity:

**EC50 48hr (Daphnia):** No information

**IC50 72hr (Algae):** No information

**LC50 96hr (fish):** No information

**12.2 Persistence and degradability:** No information

**12.3 Bioaccumulative potential:** No information

**12.4 Mobility in soil:** No information

**12.5 Results of PBT and vPvB assessment:** The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

**12.6 Other adverse effects:** No information

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
100-51-6	Benzyl alcohol	230 mg/l	700 mg/l	460 mg/l
2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	No information	No information	
1477-55-0	benzene-1, 3-dimethanamine	No information	No information	
98-54-4	paratertiarybutylphenol	3.4 to 4.5 mg/l	2.4 mg/l	4.71 to 5.62 mg/l
25620-58-0	trimethyl 1-1,6-hexanediamine	No information	No information	
8007-24-7	cashew nutshell oil	No information	No information	

### 13. Disposal Considerations

**13.1 WASTE TREATMENT METHODS:** If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport Information

<b>14.1 UN number</b>	UN2735
<b>14.2 UN proper shipping name</b>	Amines, Liquid, Corrosive, N.O.S.
<b>Technical name</b>	(Benzene-1,3-Dimethanamine, 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
<b>14.3 Transport hazard class(es)</b>	8
<b>Subsidiary shipping hazard</b>	N/A
<b>14.4 Packing group</b>	PG III
<b>14.5 Environmental hazards</b>	RQ 1001 lbs.
<b>14.6 Special precautions for user</b>	Not applicable
<b>EmS-No.:</b>	Not applicable
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code</b>	Not applicable

### 15. Regulatory Information

**15.1 Safety, health and environmental regulations/legislation for the substance or mixture:**

**U.S. Federal Regulations: As follows -**

#### CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute Toxicity (any route of exposure), Reproductive toxicity, Skin Corrosion or Irritation, Respiratory or Skin Sensitization

#### Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS-No.</u>
Nonylphenol	25154-52-3

**Toxic Substances Control Act:**

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

**U.S. Clean Air Act:**

EPA Coating Category:	Floor Coatings
EPA VOC Content Limit (g/l):	400
Product VOC Content (g/l)	12
Thinning Recommendations:	None
Application Recommendations:	For professional use only.

\* As per the federal EPA definition for coating categories in 40 CFR 59.401.

\*\* Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

**U.S. State Regulations: As follows -****New Jersey Right-to-Know:**

The following materials are non-hazardous, but are among the top five components in this product.

<u>Chemical Name</u>	<u>CAS-No.</u>
No Chemical Name Found	

**Pennsylvania Right-To-Know**

The following non-hazardous ingredients are present in the product at greater than 3%.

<u>Chemical Name</u>	<u>CAS-No.</u>
No Chemical Name Found	

**California Proposition 65:**

No Proposition 65 Chemicals exist in this product.

**International Regulations: As follows -****\* Canadian DSL:**

All chemical ingredients included on inventory or exempt.

**15.2 Chemical Safety Assessment:**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

**16. Other Information****Text for GHS Hazard Statements shown in Section 3 describing each ingredient:**

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.



H411 Toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.

### Reasons for revision

Substance and/or Product Properties Changed in Section(s):

02 - Hazard Identification

Revision Statement(s) Changed

This is a new Safety Data Sheet (SDS).

### List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;  
 European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;

European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);  
 EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

### Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m <sup>3</sup>	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.

