



Safety Data Sheet

prepared to UN GHS Revision 3

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

- 1.1 **Product Identifier** 850-FLOWCHEMVE-B-11OZ **Revision Date:** 05/23/2018
Product Name: Flowchem VE Catalyst **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 2
Carcinogenicity, category 2
Organic Peroxide, categories C, D
STOT, repeated exposure, category 2
STOT, single exposure, category 3, RTI
Skin Corrosion, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

Cumene hydroperoxide, Cumene, Acetophenone, cumyl alcohol

HAZARD STATEMENTS

Organic Peroxide, categories C, D	H242-CD	Heating may cause a fire.
Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Acute Toxicity, Dermal, category 3	H311	Toxic in contact with skin.
Skin Corrosion, category 1	H314-1	Causes severe skin burns and eye damage.
Acute Toxicity, Inhalation, category 2	H330-2	Fatal if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment, Chronic, category 2	H411	Toxic to aquatic life with long lasting effects.

PRECAUTION PHRASES

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234	Keep only in original packaging.
P235	Keep cool.
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	IF ON SKIN:
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.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P352	Wash with plenty of soap and water.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
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>
80-15-9	Cumene hydroperoxide	50-75
98-82-8	Cumene	10-25
617-94-7	cumyl alcohol	10-25
98-86-2	Acetophenone	0.1-1.0

<u>CAS-No.</u>	<u>GHS Symbols</u>	<u>GHS Hazard Statements</u>	<u>M-Factors</u>
80-15-9	GHS02-GHS05-GHS06-GHS08-GHS09	H226-242-302-311-314-330-335-373-411	0
98-82-8	GHS02-GHS07-GHS08-GHS09	H226-302-304-335-351-411	0
617-94-7	GHS07	H302-315-319	0
98-86-2	GHS06	H302-319-330	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.

AFTER SKIN CONTACT: Wash off immediately with soap and plenty of water.

AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

AFTER INGESTION: Never give anything by mouth to an unconscious person. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. If swallowed, call a poison control centre or doctor immediately.

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

No Information

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, Water Fog

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

SandFoamCarbon dioxide (CO2)Dry chemical

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Use personal protective equipment.

6.2 Environmental precautions

No Information

6.3 Methods and material for containment and cleaning up

Pick up and transfer to properly labelled containers. Do not let product enter drains. After cleaning, flush away traces with water. Avoid breathing dust.

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. Avoid contact with skin and eyes.

PROTECTION AND HYGIENE MEASURES: Wash hands before breaks and at the end of workday. Do not breathe dust. 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: Keep tightly closed in a dry and cool place. Keep locked up or in an area accessible only to qualified or authorised persons.

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)

<u>Name</u>	<u>CAS-No.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Cumene hydroperoxide	80-15-9		
Cumene	98-82-8	50 ppm	246.0 MG/M3
cumyl alcohol	617-94-7		
Acetophenone	98-86-2	10.00 PPM	10.00 PPM

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

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: Effective dust mask.

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:	Colorless to Light Yellow
Physical State	Liquid
Odor	faint
Odor threshold	Not determined
pH	9.4
Melting point / freezing point (°C)	N/A
Boiling point/range (°C)	152 - N.D.
Flash Point, (°F / °C)	Not determined
Evaporation rate	N/A
Flammability (solid, gas)	Decomposition products may be flammable
Upper/lower flammability or explosive limits	0 - 0
Vapour Pressure	N/A
Vapour density	N/A
Relative density	N/A
Solubility in / Miscibility with water	Insoluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	N/A
Decomposition temperature (°C)	55 C
Viscosity	N/A
Explosive properties	N/A
Oxidising properties	Yes

9.2 Other information

VOC Content g/l:	44
Density (lbs./gal)	1.07

10. Stability and Reactivity

10.1 Reactivity

Explosive reaction may occur on heating or burning.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Direct sources of heat.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Carbon monoxide Benzoic acid. Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: Based on dibenzoyl peroxide: >5000 mg/l, rat
Inhalation LC50: Based on dibenzoyl peroxide: >24.3 mg/l, rat, 4 hr. exposure time

Irritation: Based on dibenzoyl peroxide: Non-irritating (4 hr. exposure time)

Corrosivity: No information available.

Sensitization: Based on dibenzoyl peroxide: Sensitization possible by skin contact

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: Based on dibenzoyl peroxide: Ames test, not mutagenic

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>
80-15-9	Cumene hydroperoxide	382 mg/kg, oral, rat		220 ppm, / 4 hr, rat, inh
98-82-8	Cumene	1400 mg/kg, oral, rat		8000 ppm / 4 hours
617-94-7	cumyl alcohol	1300 mg/kg, oral, rat		
98-86-2	Acetophenone	815 - 3200 mg/kg, oral, rat		1.2 mg/L mouse, inh

Additional Information:

No Information

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): 2.91 mg/l
IC50 72hr (Algae): No information
LC50 96hr (fish): 2.0 mg/l (Poecilia reticulata)

12.2 Persistence and degradability: Readily biodegradable (closed bottle test)

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:

Bacteria: Activated sludge respiration inhibition test, EC50 = 35mg/l.

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
80-15-9	Cumene hydroperoxide	No information	No information	
98-82-8	Cumene	No information	No information	
617-94-7	cumyl alcohol	No information	No information	
98-86-2	Acetophenone	No information	No information	

13. Disposal Considerations

13.1 WASTE TREATMENT METHODS: Send to a licensed waste management company. If recycling is not practicable, dispose of in compliance with local regulations. Uncontrolled disposal or recycling of this packaging is not permitted and can be dangerous. Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

14.1	UN number	UN3105
14.2	UN proper shipping name	Organic Peroxide Type D, Liquid
	Technical name	(Methyl Ethyl Ketone Peroxides, <=45%)
14.3	Transport hazard class(es)	5.2
	Subsidiary shipping hazard	Not applicable
14.4	Packing group	II
14.5	Environmental hazards	Not applicable
14.6	Special precautions for user	Not applicable
	EmS-No.:	F-J , S-R
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	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:

Organic peroxide, Carcinogenicity, Acute Toxicity (any route of exposure), Skin Corrosion or Irritation, Specific target organ toxicity (single or repeated exposure)

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>
Cumene hydroperoxide	80-15-9
Cumene	98-82-8
Acetophenone	98-86-2

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:

<u>Chemical Name</u>	<u>CAS-No.</u>
Acetophenone	98-86-2

U.S. Clean Air Act:

EPA Coating Category:	Not applicable
EPA VOC Content Limit (g/l):	Not determined
Product VOC Content (g/l)	Not applicable
Thinning Recommendations:	Not applicable
Application Recommendations:	Not applicable

* 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.

No NJ Right-To-Know components exist in this product.

Pennsylvania Right-To-Know

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

No PA Right-To-Know components exist in this product.

California Proposition 65:

WARNING: Cancer - www.P65Warnings.ca.gov

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:**

H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.

H351 Suspected of causing cancer.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H411 Toxic to aquatic life with long lasting effects.

Reasons for revision

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

- 02 - Hazard Identification
- 15 - Regulatory Information

Revision Statement(s) Changed

This is a new Safety Data Sheet (SDS). This Safety Data Sheet (SDS) has been revised to meet updated national hazard communication standards which have adopted the provisions of the UN GHS system. There have been both formatting and content changes based on the GHS classification (if applicable), Please review each section of the SDS for specific changes.

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/m3	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.