SAFETY DATA SHEET

Issue Date: December 11, 2014 **Revision Date: December 11, 2014** **Version 2014**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Duraguard 401-30E, Part C Catalyst

Other Means of Identification: SDS #: F5345CF

Recommended Use: 3 Component Penetrating Sealer and Crack Healer
Restrictions on Use: No Data

Supplier of the Safety Data Sheet including Address:
ChemMasters Inc.
300 Edwards Street
Madison, OH 44057

Telephone Numbers
Company Phone Number Phone: 800-486-7866, 440-428-2105
Fax: 440-428-7091

Emergency Telephone: ChemTrec 800-424-9300 (United States & Canada), International Call: 1-703-527-3887

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Combustible Liquid, Heating may cause a fire, Harmful if swallowed or in contact with skin, Causes severe skin burns and eye damage, Toxic if inhaled, May cause damage to organs through prolonged or repeated exposure, Toxic to aquatic life with long lasting effects.

Target Organs: Eyes, Skin, Respiratory System, Liver & Kidneys

GHS Classification

Flammable Liquids Category 4
Organic Peroxides – Category Type F
Acute Toxicity, Oral Category 4
Acute Toxicity, Inhalation Category 3
Acute Toxicity, Dermal Category 4
Skin Corrosion/Irritation – Category 1B
Serious eye damage – Category 1
Specific target organ toxicity – repeated exposure Category 2
Acute aquatic toxicity – Category 2
Chronic aquatic toxicity – Category 2

Label Elements, including precautionary statements

Pictograms: 

Signal Word: Danger

Hazard Statements:

H227	Combustible Liquid
H242	Heating may cause a fire
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H331	Toxic if inhaled
H373	May cause damage to organs (kidneys & liver) through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects

Precautionary Statement(s)

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233	Keep container tightly closed.
P234	Keep only in original packaging
P235	Keep Cool
P240	Ground and bond container and receiving equipment.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands and skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P303+P361+353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P363	Wash contaminated clothing before reuse.
P310	Immediately call a POISON CENTER/doctor.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310	Immediately call a POISON CENTER/doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER/doctor.
P370+P378	In case of fire use, dry chemical, alcohol resistant foam, sand, or carbon dioxide to extinguish.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage

Storage:	P403+P233	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up
	P410	Protect from sunlight
	P411	Store at temperatures not exceeding $40^{o}C/104^{o}F$
	P420	Store separately

Disposal: P501 Dispose of contents/container in accordance with local/regional/national regulations.

Hazards not otherwise classified: None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component		
Cumyl Hydroperoxide	CAS#: 80-15-9	90%
2-Phenylisopropanol	CAS#: 617-94-7	5-10%
Cumene	CAS#: 98-82-8	1-5%
Acetophenone	CAS#: 98-86-2	1-2%

Ingredients not listed on this safety data sheet are considered to be non-hazardous according to OSHA 1910.1200 or are not present above their cutoff levels. Where a range is displayed, the exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First Aid Measures
General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. If you feel unwell get medical advice or attention.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash off with soap and plenty of water. Immediately call a POISON CENTER/doctor.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Alcohol-resistant foam, water spray, sand, dry chemical powder or carbon dioxide

Un-Suitable Extinguishing Media: Halons

Specific Hazards Arising from the Chemical: Caution: re-ignition may occur. Decomposition occurs under effect of heating. If involved in a fire, it will support combustion. Vapors may form explosive mixtures with air. In case of fire and/or explosion do not breathe fumes.

Hazardous Combustion Products: Carbon oxides, acetophenone, 2-Phenylisopropanol and methane

Protective Equipment and Precautions for Firefighters
Wear self-contained breathing apparatus and full protective gear for firefighting.

Further Information: Use water spray to cool unopened containers. See Section 7 for safe handling and storage

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Use personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental Precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains or waterways.

Methods and Material for Containment and Cleaning Up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Wash hands and skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
Additional Safe Handing Information: None

Conditions for Safe Storage, Including any Incompatibilities
Keep container tightly closed in a dry, cool and well ventilated place. Keep away from direct sunlight. Store separate from other chemicals. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not store at temperatures above 104^{o}F/40^{o}C. Do not store at temperatures below -22^{o}F/-30^{o}C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Component Exposure Limits
Cumyl hydroperoxide, CAS# 80-15-9: AIHA WEEL/TWA: 6 mg/m3
Cumene, CAS#: 98-82-8: OSHA TLLV/TWA: 245 mg/m3; ACGIH TLV/TWA: 50 ppm; NIOSH IDLH 900 ppm
Acetophenone, CAS#: 98-86-2: ACGIH TLV/TWA 10 ppm; AIHA WEEL/TWA 50 mg/m3

Appropriate Engineering Controls
Local Ventilation: Recommended
General Ventilation: Recommended

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection: Use proper protection – Tightly fitting Safety Goggles.

Skin and Body Protection: Wash at mealtime and end of shift. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc.). Use chemical protective gloves as a minimum and wash skin promptly upon any skin contact.

Respiratory Protection: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice. Wash hands before & after breaks and work day.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear
Color: Colourless to light yellow
Odor: Pungent
Odor threshold: No Data

Property	Value	Remarks – Method
Vapor Pressure	0.4 kPa @ 68 Degrees F	
Vapor Density	Not Available	
Relative Density	Not Available	
pH:	Slightly acidic	
Melting/Freezing Point	Not Relevant	
Solubility	Not Available	
Evaporation Rate	Slower than ether	
Flash Point	Above the SADT value ($79^{o}C/174^{o}F$)	Closed Cup
SADT Value	70 Degrees C	
Flammability Limits	Not Available	
Flammability (Solid, gas)	Not Relevant	
Auto Ignition Temperature	445 Degrees F	
Initial Boiling Point/Boiling Range	313-390 Degrees F	
Decomposition Temperature	Not Available	
Viscosity	10 .9 mPa.s at 20 Degrees C	
Specific Gravity	1.03-1.07 at 20 Degrees C	8.7 +/- 0.2 Lbs./gal.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Heat, Flames and Sparks. Minimize exposure to air.

Incompatible Materials: Keep away from strong reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps).

Hazardous Decomposition Products:
Hazardous decomposition products formed under fire conditions, Carbon oxides, acetophenone, 2-Phenylisopropanol and methane.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Inhalation, Skin Contact, Eye Contact.
Ingestion is not an anticipated route of exposure for this material in industrial use.

Symptoms of Exposure:
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Symptoms include cough, shortness of breath, headache and nausea. Causes eye and skin burns.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure
Repeated Exposure may cause kidney and liver damage.

Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified by ACGIH, OSHA or NTP as a carcinogen or suspected carcinogen. Cobalt (II) 2-ethylhexanoate is considered possibly carcinogenic to humans by IARC.

Other Chronic Effects: None known

Numerical Measures of Toxicity
Cumyl hydroperoxide, CAS# 80-15-9:
Acute Toxicity: LD50 Oral Rat: 382 mg/kg; LD50 Dermal Rat 500 mg/kg, Inhalation LC50 1.24 mg/l 4 hr. Rat
Skin Corrosion/Irritation: Skin – rabbit – causes burns 72 hours

12. ECOLOGICAL INFORMATION

Ecotoxicity: Material is expected to be toxic to aquatic organisms. It may cause long-term adverse effects in the aquatic environment.

Acute Toxicity: Vertebrates
Component: Cumyl hydroperoxide, CAS# 80-15-9, LC50 Rainbow Trout, 96 hr, 3.9 mg/l

Acute Toxicity: Invertebrates
Component: Cumyl hydroperoxide, CAS# 80-15-9, EC50 Water Flea, 48 hr, 18.84 mg/l

Acute Toxicity: Aquatic Plants
Component: Cumyl hydroperoxide, CAS# 80-15-9, EC50, 72 hr, 3.1 mg/l

Persistence and Degradability:
Component: Cumyl hydroperoxide, CAS# 80-15-9
Biodegradability – Aerobic, Result: 3% - Not readily biodegradable (Method: OECD Test Guideline 301B

Bioaccumulation: No Data

Mobility: No Data

Other Adverse Effects: No Data Available

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes: Under RCRA 40 CFR 261 this material is a hazardous waste. Dispose of in accordance with all federal, state, and local regulations. If uncertain of local requirements, contact the proper environmental authorities for information on waste disposal in your area. Contact a licensed professional waste disposal service to dispose of this material. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT
UN3109, Organic Peroxide Type F, Liquid (Cumyl Hydroperoxide, 90%), 5.2 (8), II

IATA
UN3109, Organic Peroxide Type F, Liquid (Cumyl Hydroperoxide, 90%), 5.2 (8), II
“Keep Away From Heat”

IMDG
UN3109, Organic Peroxide Type F, Liquid (Cumyl Hydroperoxide, 90%), 5.2 (8), II
Marine Pollutant: Yes

15. REGULATORY INFORMATION

International Inventories
TSCA: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

US Federal Regulations
SARA 302: Not listed
SARA 311/312 Hazard Categories: Acute: Yes, Fire: Yes, Chronic: Yes

SARA 313 Hazard List: Cumyl Hydroperoxide, Cumene, Acetophenone

CERCLA Hazardous Substance List: Cumyl Hydroperoxide, RQ=10 lbs.; Cumene, RQ=5000 lbs.; Acetophenone, RQ=5000 lbs.

CWA (Clean Water Act): This product is subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

Supplemental State Compliance Information
California:
Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm**; Cumene**

States Right To Know:
Cumyl Hydroperoxide: Massachusetts, New Jersey, Pennsylvania, Connecticut, New York, Rhode Island
Cumene: Massachusetts, New Jersey, Pennsylvania, Connecticut, New York, Rhode Island, Illinois, Minnesota
Acetophenone: Massachusetts, New Jersey, Pennsylvania, Connecticut, New York, Rhode Island, Minnesota

U.S. EPA Label Information: No Data

Canada
WHMIS Classification: Class B3, C, D1A, D2A, E, F (Flammable, Oxidizing Material, Toxic, Corrosive, Dangerously Reactive Material)
Symbol: Flammable, Oxidizing Material, Toxic (Div. 1 & 2), Corrosive, Dangerously Reactive Material

16. OTHER INFORMATION

HMIS Classification:

Health hazard:	**3***
Flammability:	**2**
Physical Hazards:	**1**

NFPA Rating:

Health hazard:	**3**
Fire:	**2**
Reactivity Hazard:	**1**

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Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet