



## Material Safety Data Sheet

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**PRODUCT NAME:** 3M™ Dynatron® Dyna-Glass® Short Strand 462, 464  
**MANUFACTURER:** 3M  
**DIVISION:** Automotive Aftermarket

**ADDRESS:** 3M Center, St. Paul, MN 55144-1000, USA

**Telephone:** 1-888-3M HELPS (1-888-364-3577)

**EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)**

**Issue Date:** 10/01/13  
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**Document Group:** 24-7797-4

### ID Number(s):

70-0080-0332-2, 70-0080-0333-0

**This product is a kit or a multipart product which consists of multiple, independently packaged components. An SDS for each of these components is included. Please do not separate the component SDSs from this cover page. The document numbers of the SDSs for components of this product are:**

24-6783-5, 29-5993-0

### Revision Changes:

Kit: Component heading paragraph information was modified.  
Kit: Component document group number(s) information was modified.  
Page Heading: Product name information was modified.  
Kit: Product name information was modified.  
Section 1: Manufacturer name information was added.  
Section 16: Disclaimer (first paragraph) information was added.  
Section 16: Disclaimer (second paragraph) information was added.  
Section 16: Web address information was added.  
Section 1: Address information was added.  
Copyright information was added.  
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Telephone header information was added.  
Company Telephone information was added.  
Section 1: Emergency phone information information was added.  
Company Logo information was deleted.  
Copyright information was deleted.  
Kit: Manufacturer's name information was deleted.  
Kit: Emergency phone information information was deleted.  
Kit: Disclaimer (first paragraph) information was deleted.  
Kit: Disclaimer (second paragraph) information was deleted.  
Kit: Address line 1 information was deleted.  
Kit: Address line 2 information was deleted.

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<b>Issue Date:</b>	02/21/14	<b>Supersedes Date:</b>	10/02/12

### SECTION 1: Identification

#### 1.1. Product identifier

Cream Hardener (Red, White & Blue)

#### Product Identification Numbers

LB-K100-0965-7, LB-K100-0965-8, LB-K100-0965-9, LB-K100-0966-0, LB-K100-0966-1, LB-K100-0966-2, LB-K100-0966-3, LB-K100-1035-6, LB-K100-1045-4, LB-K100-1286-7, 41-0003-7987-9, 60-4550-6614-6, 60-4550-6617-9, 60-4550-6830-8, 60-4550-6981-9, 60-4550-6982-7, 60-4550-8123-6

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Automotive

#### 1.3. Supplier's details

<b>MANUFACTURER:</b>	3M
<b>DIVISION:</b>	Automotive Aftermarket
<b>ADDRESS:</b>	3M Center, St. Paul, MN 55144-1000, USA
<b>Telephone:</b>	1-888-3M HELPS (1-888-364-3577)

#### 1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

### SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

#### 2.1. Hazard classification

Organic Peroxide: Type E.  
Serious Eye Damage/Irritation: Category 2A.  
Skin Sensitizer: Category 1.

#### 2.2. Label elements

##### Signal word

Warning

##### Symbols

Flame | Exclamation mark |

**Pictograms**



**Hazard Statements**

Heating may cause a fire.

Causes serious eye irritation.

May cause an allergic skin reaction.

**Precautionary Statements**

**General:**

Keep out of reach of children.

**Prevention:**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep away from clothing and other combustible materials.

Keep only in original container.

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

Wear protective gloves and eye/face protection.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

**Response:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

**Storage:**

Protect from sunlight.

Store at temperatures not exceeding 32C/90F. Keep cool.

Store away from other materials.

**Disposal:**

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

**Notes to Physician:**

Not applicable

**2.3. Hazards not otherwise classified**

None.

6% of the mixture consists of ingredients of unknown acute dermal toxicity.

14% of the mixture consists of ingredients of unknown acute inhalation toxicity.

**SECTION 3: Composition/information on ingredients**

Ingredient	C.A.S. No.	% by Wt
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Benzoyl Peroxide	94-36-0	30 - 60 Trade Secret *
Water	7732-18-5	10 - 30 Trade Secret *
Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30 Trade Secret *
Zinc Stearate	557-05-1	3 - 7 Trade Secret *
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	1 - 5 Trade Secret *
Calcium Sulfate	7778-18-9	1 - 5 Trade Secret *
Iron Oxide (FE2O3)	1309-37-1	1 - 5 Trade Secret *
Ferric Ferrocyanide	14038-43-8	0 - 1 Trade Secret *
Ferric Ammonium Ferrocyanide	25869-00-5	0 - 1 Trade Secret *

\*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

#### **Inhalation:**

Remove person to fresh air. If you feel unwell, get medical attention.

#### **Skin Contact:**

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

#### **Eye Contact:**

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

#### **If Swallowed:**

Rinse mouth. If you feel unwell, get medical attention.

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

See Section 11.1. Information on toxicological effects.

### **4.3. Indication of any immediate medical attention and special treatment required**

Not applicable

## **SECTION 5: Fire-fighting measures**

### **5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

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

Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

### **5.3. Special protective actions for fire-fighters**

No unusual fire or explosion hazards are anticipated.

## **SECTION 6: Accidental release measures**

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

Evacuate area. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces,

provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

**6.2. Environmental precautions**

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

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

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

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

Keep container tightly closed. Protect from sunlight. Store away from heat. Store at temperatures not exceeding 32C/90F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional Comments</b>
Iron Oxide (FE2O3)	1309-37-1	Amer Conf of Gov. Indust. Hyg.	TWA(respirable fraction):5 mg/m3	
Iron Oxide (FE2O3)	1309-37-1	US Dept of Labor - OSHA	TWA(as fume):10 mg/m3	
CYANIDES	14038-43-8	US Dept of Labor - OSHA	TWA(as CN):5 mg/m3	Skin Notation
Zinc Stearate	557-05-1	US Dept of Labor - OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	
Calcium Sulfate	7778-18-9	Amer Conf of Gov. Indust. Hyg.	TWA(inhalable fraction):10 mg/m3	
Calcium Sulfate	7778-18-9	US Dept of Labor - OSHA	TWA(as total dust):15 mg/m3;TWA(respirable fraction):5 mg/m3	

Benzoyl Peroxide	94-36-0	Amer Conf of Gov. Indust. Hyg.	TWA:5 mg/m3	
Benzoyl Peroxide	94-36-0	US Dept of Labor - OSHA	TWA:5 mg/m3	

Amer Conf of Gov. Indust. Hyg. : American Conference of Governmental Industrial Hygienists  
 American Indust. Hygiene Assoc : American Industrial Hygiene Association  
 Chemical Manufacturer Rec Guid : Chemical Manufacturer's Recommended Guidelines  
 US Dept of Labor - OSHA : United States Department of Labor - Occupational Safety and Health Administration  
 TWA: Time-Weighted-Average  
 STEL: Short Term Exposure Limit  
 CEIL: Ceiling

**8.2. Exposure controls**

**8.2.1. Engineering controls**

Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect Vented Goggles

**Skin/hand protection**

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.

Gloves made from the following material(s) are recommended: Nitrile Rubber

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron – Nitrile

**Respiratory protection**

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**General Physical Form:** Solid  
**Specific Physical Form:** Viscous  
**Odor, Color, Grade:** Red paste with slight ester odor  
**Odor threshold** *No Data Available*

<b>pH</b>	<i>No Data Available</i>
<b>Melting point</b>	<i>No Data Available</i>
<b>Boiling Point</b>	<i>No Data Available</i>
<b>Flash Point</b>	111 °C [ <i>Test Method: Estimated</i> ]
<b>Evaporation rate</b>	<i>No Data Available</i>
<b>Flammability (solid, gas)</b>	Organic Peroxide: Type E.
<b>Flammable Limits(LEL)</b>	<i>Not Applicable</i>
<b>Flammable Limits(UEL)</b>	<i>Not Applicable</i>
<b>Vapor Pressure</b>	<i>Not Applicable</i>
<b>Vapor Density</b>	<i>Not Applicable</i>
<b>Density</b>	1.2 g/cm3
<b>Specific Gravity</b>	1.2 [ <i>@ 25 °C</i> ] [ <i>Ref Std: WATER=1</i> ]
<b>Solubility in Water</b>	Negligible
<b>Solubility- non-water</b>	<i>No Data Available</i>
<b>Partition coefficient: n-octanol/ water</b>	<i>No Data Available</i>
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Decomposition temperature</b>	<i>No Data Available</i>
<b>Viscosity</b>	<i>No Data Available</i>
<b>Hazardous Air Pollutants</b>	0 % weight [ <i>Test Method: Calculated</i> ]
<b>Volatile Organic Compounds</b>	0 lb/gal [ <i>Test Method: calculated SCAQMD rule 443.1</i> ]
<b>Volatile Organic Compounds</b>	0 g/l [ <i>Test Method: calculated SCAQMD rule 443.1</i> ]
<b>Volatile Organic Compounds</b>	0 % weight [ <i>Test Method: calculated per CARB title 2</i> ]
<b>Percent volatile</b>	20 % [ <i>Details: Water is the volatile component</i> ]
<b>VOC Less H2O &amp; Exempt Solvents</b>	0 g/l [ <i>Test Method: calculated SCAQMD rule 443.1</i> ]

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

### 10.2. Chemical stability

Stable. Stable unless exposed to heat, flames and drying conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Heat

### 10.5. Incompatible materials

Accelerators

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

## SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be



present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 11.1. Information on Toxicological effects

#### Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### Inhalation:

May be harmful if inhaled. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

#### Skin Contact:

May be harmful in contact with skin.

Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

#### Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

#### Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

#### Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

#### Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE 4,339.3 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE 10.7 mg/l
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Benzoyl Peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Benzoyl Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Benzoyl Peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 2 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Stearate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zinc Stearate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Calcium Sulfate	Ingestion	Rat	LD50 > 5,000 mg/kg
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	LD50 4,240 mg/kg
Iron Oxide (FE2O3)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg
Ferric Ammonium Ferrocyanide	Ingestion	Rat	LD50 > 5,110 mg/kg
Ferric Ferrocyanide	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	Minimal irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Rabbit	No significant irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation

**Skin Sensitization**

Name	Species	Value
Benzoyl Peroxide	Human and animal	Sensitizing
Iron Oxide (FE2O3)	Human	Some positive data exist, but the data are not sufficient for classification

**Respiratory Sensitization**

Name	Species	Value
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**Germ Cell Mutagenicity**

Name	Route	Value
Benzoyl Peroxide	In Vitro	Not mutagenic
Benzoyl Peroxide	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Benzoyl Peroxide	Ingestion	Multiple animal species	Not carcinogenic
Benzoyl Peroxide	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Benzoyl Peroxide	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	pre mating & during gestation
Benzoyl Peroxide	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	pre mating & during gestation
Benzoyl Peroxide	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	pre mating & during gestation
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Not toxic to female reproduction	Rat	NOAEL 3,770 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	Not toxic to male reproduction	Rat	NOAEL 3,770 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane,	Inhalation	Some positive male reproductive data	Rat	NOAEL 1	2 weeks

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Monobutyl Ether		exist, but the data are not sufficient for classification		mg/l	
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**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	endocrine system   hematopoietic system   liver   nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL .005 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL .001 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	heart	All data are negative	Rat	NOAEL .5 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	liver   kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	hematopoietic system	All data are negative	Rat	NOAEL 500 mg/kg/day	2 years
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	heart   endocrine system   respiratory system	All data are negative	Rat	NOAEL 3,770 mg/kg/day	90 days
Iron Oxide (FE2O3)	Inhalation	pulmonary fibrosis   pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

**Aspiration Hazard**

Name	Value

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

**SECTION 12: Ecological information****Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

**Chemical fate information**

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

**SECTION 13: Disposal considerations****13.1. Disposal methods**

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

## SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## SECTION 15: Regulatory information

### 15.1. US Federal Regulations

Contact 3M for more information.

#### 311/312 Hazard Categories:

Fire Hazard - Yes    Pressure Hazard - No    Reactivity Hazard - Yes    Immediate Hazard - Yes    Delayed Hazard - Yes

#### Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
Zinc Stearate (ZINC COMPOUNDS)	557-05-1	3 - 7
Benzoyl Peroxide	94-36-0	30 - 60
Ferric Ferrocyanide (CYANIDES)	14038-43-8	0 - 1

### 15.2. State Regulations

Contact 3M for more information.

### 15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

### 15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

## SECTION 16: Other information

### NFPA Hazard Classification

**Health:** 2 **Flammability:** 2 **Instability:** 1 **Special Hazards:** Oxidizer

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

**HMIS Hazard Classification**

**Health: 2 Flammability: 1 Physical Hazard: 1 Personal Protection: X** - See PPE section.

Hazardous Material Identification System (HMIS® III) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® III ratings are to be used with a fully implemented HMIS® III program. HMIS® is a registered mark of the American Coatings Association (ACA).

<b>Document Group:</b>	29-5993-0	<b>Version Number:</b>	3.02
<b>Issue Date:</b>	02/21/14	<b>Supersedes Date:</b>	10/02/12

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## Material Safety Data Sheet

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### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 3M™ Dynatron® Dyna-Glass Short Strand, P.N. 462, 462E, 464, 464E  
**MANUFACTURER:** 3M  
**DIVISION:** Automotive Aftermarket  
**ADDRESS:** 3M Center, St. Paul, MN 55144-1000

**EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)**

**Issue Date:** 05/06/13  
**Supersedes Date:** 05/06/13

**Document Group:** 24-6783-5

#### Product Use:

**Intended Use:** Automotive  
**Specific Use:** Repairing autobody

### SECTION 2: INGREDIENTS

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>
TALC	14807-96-6	15 - 40
1,3-ISOBENZOFURANDIONE, POLYMER WITH 2,5-FURANDIONE AND 2,2'-OXYBIS[ETHANOL]	26123-45-5	15 - 40
MAGNESIUM CARBONATE	546-93-0	10 - 30
STYRENE MONOMER	100-42-5	10 - 30
SYNTHETIC CRYSTALLINE-FREE SILICA GEL	112926-00-8	1 - 5
OXIDE GLASS CHEMICALS	65997-17-3	1 - 5
WOLLASTONITE	13983-17-0	1 - 5
LIMESTONE	1317-65-3	1 - 5
CHLORITE (MINERAL)	1318-59-8	< 2.5
QUARTZ SILICA	14808-60-7	< 0.05

### SECTION 3: HAZARDS IDENTIFICATION

#### 3.1 EMERGENCY OVERVIEW

**Specific Physical Form:** Paste

**Odor, Color, Grade:** Pungent organic odor. Green.

**General Physical Form:** Liquid

**Immediate health, physical, and environmental hazards:** Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. May cause target organ effects. Contains a chemical or chemicals which can cause cancer.

### 3.2 POTENTIAL HEALTH EFFECTS

**Eye Contact:**

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Skin Contact:**

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

**Inhalation:**

May be harmful if inhaled.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Prolonged or repeated exposure may cause:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests.

May be absorbed following inhalation and cause target organ effects.

**Ingestion:**

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

**Target Organ Effects:**

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Prolonged or repeated exposure may cause:

Immunological Effects: Signs/symptoms may include alterations in the number of circulating immune cells, allergic skin and /or respiratory reaction, and changes in immune function.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Ocular Effects: Signs/symptoms may include blurred or significantly impaired vision.

**Carcinogenicity:**

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
QUARTZ SILICA	14808-60-7	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE)	SEQ677	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer

SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE)	SEQ677	Known human carcinogen	National Toxicology Program Carcinogens
STYRENE MONOMER	100-42-5	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

## SECTION 4: FIRST AID MEASURES

### 4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>No Data Available</i>
Flash Point	88 °F [ <i>Test Method:</i> Closed Cup]
Flammable Limits(LEL)	1.1 %
Flammable Limits(UEL)	<i>No Data Available</i>
OSHA Flammability Classification:	Class IC Flammable Liquid

### 5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

### 5.3 PROTECTION OF FIRE FIGHTERS

**Special Fire Fighting Procedures:** Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Water may be used to blanket the fire. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard.



## 6.2. Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

## Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Contain spill. Cover spill area with a fire-extinguishing foam. An aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Seal the container.

**In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.**

## SECTION 7: HANDLING AND STORAGE

### 7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Avoid breathing of vapors, mists or spray. Avoid skin contact. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe dust. Avoid contact with oxidizing agents.

### 7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed. Do not store containers on their sides. Store away from oxidizing agents.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Use in an enclosed process area is recommended. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Do not use in a confined area or areas with little or no air movement. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Avoid eye contact. Avoid eye contact with vapors, mists, or spray.  
The following eye protection(s) are recommended: Indirect Vented Goggles

#### 8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.  
Gloves made from the following material(s) are recommended: Polymer laminate

Use an additional glove (e.g. supported PVC or Nitrile) over the PE/EVAL glove, and change the over-glove frequently.

### 8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

### 8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

## 8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
LIMESTONE	OSHA	TWA, respirable fraction	5 mg/m3	
LIMESTONE	OSHA	TWA, as total dust	15 mg/m3	
MAGNESIUM CARBONATE	OSHA	TWA, respirable fraction	5 mg/m3	
MAGNESIUM CARBONATE	OSHA	TWA, as total dust	15 mg/m3	
OXIDE GLASS CHEMICALS	Manufacturer determined	TWA, as dust	10 mg/m3	
QUARTZ SILICA	ACGIH	TWA, respirable fraction	0.025 mg/m3	
QUARTZ SILICA	OSHA	TWA concentration, respirable	0.1 mg/m3	
QUARTZ SILICA	OSHA	TWA concentration, as total dust	0.3 mg/m3	
SILICA, AMORPHOUS	OSHA	TWA concentration	0.8 mg/m3	
SILICA, AMORPHOUS	OSHA	TWA	20 millions of particles/cu. ft.	
STYRENE MONOMER	ACGIH	TWA	20 ppm	
STYRENE MONOMER	ACGIH	STEL	40 ppm	
STYRENE MONOMER	OSHA	TWA	100 ppm	
STYRENE MONOMER	OSHA	CEIL	200 ppm	
TALC	ACGIH	TWA, respirable fraction	2 mg/m3	
TALC	CMRG	TWA, as respirable dust	0.5 mg/m3	
TALC	OSHA	TWA concentration, respirable	0.1 mg/m3	
TALC	OSHA	TWA concentration, as total dust	0.3 mg/m3	
TALC	OSHA	TWA	20 millions of particles/cu. ft.	

#### SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Specific Physical Form:</b>	Paste
<b>Odor, Color, Grade:</b>	Pungent organic odor. Green.
<b>General Physical Form:</b>	Liquid
<b>Autoignition temperature</b>	<i>No Data Available</i>
<b>Flash Point</b>	88 °F [ <i>Test Method:</i> Closed Cup]
<b>Flammable Limits(LEL)</b>	1.1 %
<b>Flammable Limits(UEL)</b>	<i>No Data Available</i>
<b>Boiling Point</b>	293 °F
<b>Density</b>	1.638 g/ml
<b>Vapor Density</b>	3.6 [ <i>Ref Std:</i> AIR=1]
<b>Vapor Density</b>	<i>No Data Available</i>
<b>Vapor Pressure</b>	4.5 mmHg
<b>Specific Gravity</b>	1.638 [ <i>Ref Std:</i> WATER=1]
<b>pH</b>	<i>No Data Available</i>
<b>Melting point</b>	<i>No Data Available</i>
<b>Solubility In Water</b>	<i>No Data Available</i>
<b>Solubility in Water</b>	Negligible
<b>Evaporation rate</b>	<=1 [ <i>Ref Std:</i> ETHER=1]
<b>Hazardous Air Pollutants</b>	15.1 % weight [ <i>Test Method:</i> Calculated]
<b>Volatile Organic Compounds</b>	247 g/l [ <i>Test Method:</i> calculated SCAQMD rule 443.1]
<b>Volatile Organic Compounds</b>	15.1 % weight [ <i>Test Method:</i> calculated per CARB title 2]
<b>Kow - Oct/Water partition coef</b>	<i>No Data Available</i>
<b>VOC Less H2O &amp; Exempt Solvents</b>	247 g/l [ <i>Test Method:</i> calculated SCAQMD rule 443.1]
<b>Viscosity</b>	<i>No Data Available</i>

## SECTION 10: STABILITY AND REACTIVITY

**Stability:** Stable.

### Materials and Conditions to Avoid:

#### 10.1 Conditions to avoid

Heat  
Sparks and/or flames

#### 10.2 Materials to avoid

Strong acids  
Strong bases  
Strong oxidizing agents  
Alkali and alkaline earth metals

**Hazardous Polymerization:** Hazardous polymerization will not occur.

### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Toxic Vapor, Gas, Particulate	During Combustion

## SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

## SECTION 12: ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

Not determined.

### CHEMICAL FATE INFORMATION

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of according to the policies/procedures contained in the 3M Waste Management Program Manual and the instructions provided on the Waste Stream Profile Reference Sheet. Consult your Waste Management (RCRA) Coordinator with any questions. Consult 3M Waste Disposal Manual for proper procedures for packaging, labelling, marking, and shipping waste.

**EPA Hazardous Waste Number (RCRA):** D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

## SECTION 14: TRANSPORT INFORMATION

LB-K100-0501-1, LB-K100-0507-0

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

## SECTION 15: REGULATORY INFORMATION

### US FEDERAL REGULATIONS

Contact 3M for more information.

#### 311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
STYRENE MONOMER	100-42-5	10 - 30

### STATE REGULATIONS

Contact 3M for more information.

### CALIFORNIA PROPOSITION 65

**Ingredient**

SILICA, CRYSTALLINE (AIRBORNE  
PARTICLES OF RESPIRABLE SIZE)

**C.A.S. No.**

None

**Classification**

\*\*Carcinogen

\*\* WARNING: contains a chemical which can cause cancer.

**CHEMICAL INVENTORIES**

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

**INTERNATIONAL REGULATIONS**

Contact 3M for more information.

**This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

**SECTION 16: OTHER INFORMATION**

**NFPA Hazard Classification**

**Health: 2 Flammability: 3 Reactivity: 0 Special Hazards: None**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

**Reason for Reissue:** The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

**Revision Changes:**

Section 3: Potential effects from inhalation information was modified.  
Section 2: Ingredient table was modified.  
Section 8: Exposure guidelines ingredient information was modified.  
Section 3: Carcinogenicity table was modified.  
Section 1: Product name was modified.  
Section 1: Product use information was modified.  
Section 1: Emergency phone information was deleted.  
Company Logo was deleted.  
Copyright was deleted.  
Section 16: Disclaimer (second paragraph) was modified.  
Section 16: Web address heading was deleted.  
Section 3: Potential effects from inhalation information was modified.  
Section 10: Hazardous decomposition or by-products table was modified.  
Section 13: Waste disposal method information was modified.  
Section 8: Skin protection - recommended gloves information was modified.  
Section 8: Respiratory protection - recommended respirators information was modified.  
Section 8: Respiratory protection - recommended respirators was modified.  
Section 3: Immediate other hazard(s) was modified.  
Section 3: Other health effects information was modified.  
Page Heading: Product name was modified.  
Section 9: Density information was modified.  
Section 9: Vapor density value was modified.  
Section 9: Vapor pressure value was modified.

Section 9: Boiling point information was modified.  
Section 5: Flammable limits (UE) information was modified.  
Section 5: Flammable limits (LEL) information was modified.  
Section 5: Autoignition temperature information was modified.  
Section 9: Vapor density text was modified.  
Section 5: Flash point information was modified.  
Section 9: Property description for required properties was deleted.  
Section 9: Property description for optional properties was modified.  
Section 9: Specific gravity information was modified.  
Section 9: pH information was modified.  
Section 9: Melting point information was modified.  
Section 9: Solubility in water value was modified.  
Section 9: Solubility in water text was modified.  
Section 8: Respiratory protection - recommended respirators guide was modified.  
Section 1: Address line 1 was deleted.  
Section 1: Address line 2 was deleted.  
Section 9: Flash point information was modified.  
Section 9: Flammable limits (LEL) information was modified.  
Section 9: Flammable limits (UEL) information was modified.  
Section 9: Autoignition temperature information was modified.  
Section 8: Respiratory protection - recommended respirators punctuation was deleted.  
Section 2: Ingredient table was modified.  
Section 15: EPCRA 313 information was modified.  
Section 8: Exposure guidelines ingredient information was modified.  
Section 3: Carcinogenicity table was modified.  
Section 15: California proposition 65 ingredient information was added.  
Section 15: California proposition 65 heading was added.  
Section 15: California proposition 65 cancer warning was added.  
Section 16: Web address was added.  
Section 6: Personal precautions information was added.  
Section 6: Environmental procedures information was modified.  
Section 6: Methods for cleaning up information was modified.  
Section 10: Materials to avoid physical property was modified.  
Section 1: Address was added.  
Copyright was added.  
Company logo was added.  
Telephone header was added.  
Company Telephone was added.  
Section 1: Emergency phone information was added.

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