

# **Safety Data Sheet**

Copyright, 2016, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

This Safety Data Sheet (SDS) is provided as a courtesy in response to a customer request. This product is not regulated under, and a SDS is not required for this product by the OSHA Hazard Communication Standard (29 CFR 1910.1200) because, when used as recommended or under ordinary conditions, it should not present a health and safety hazard. However, use or processing of the product not in accordance with the product's recommendations or not under ordinary conditions may affect the performance of the product and may present potential health and safety hazards.

35-8080-0 1.00 **Document Group: Version Number: Issue Date:** 01/22/16 **Supercedes Date:** Initial Issue

# **SECTION 1: Identification**

#### 1.1. Product identifier

3M(TM) Quantum Dot Enhancement Film-360r

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

### Recommended use

Film

1.3. Supplier's details

**MANUFACTURER:** 

**DIVISION:** Display Materials and Systems Division **ADDRESS:** 3M Center, St. Paul, MN 55144-1000, USA **Telephone:** 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**

#### 2.1. Hazard classification

This product is exempt from hazard classification according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### 2.2. Label elements

### Signal word

Not applicable.

## **Symbols**

Not applicable.

# **Pictograms**

Not applicable.

#### 2.3. Hazards not otherwise classified

None.

120% of the mixture consists of ingredients of unknown acute oral toxicity.

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

Ingredient	C.A.S. No.	% by Wt
Barrier Film	None	70 - 90
Quantum Dot Matrix	None	10 - 30

# **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

#### **Inhalation:**

No need for first aid is anticipated.

#### **Skin Contact:**

No need for first aid is anticipated.

#### **Eve Contact:**

No need for first aid is anticipated.

### If Swallowed:

No need for first aid is anticipated.

# 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

None inherent in this product.

# ${\bf 5.3.}\ Special\ protective\ actions\ for\ fire-fighters$

No special protective actions for fire-fighters are anticipated.

# **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

Not applicable. Ventilate the area with fresh air.

# 6.2. Environmental precautions

Not applicable.

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

Page 2 of 7

#### 3M(TM) Quantum Dot Enhancement Film-360r 01/22/16

Not applicable. Sweep up. Vacuum or sweep up. WARNING! A motor could be an ignition source and cause flammable gases or vapors or dust in the spill area to burn or explode. Seal the container.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

# 7.2. Conditions for safe storage including any incompatibilities

Not applicable.

# SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### Occupational exposure limits

No occupational exposure limit values exist for any of the components listed in Section 3 of this SDS.

#### 8.2. Exposure controls

#### 8.2.1. Engineering controls

No engineering controls required.

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

#### Eye/face protection

Eye protection not required.

#### **Skin/hand protection**

No chemical protective gloves are required.

#### **Respiratory protection**

Respiratory protection is not required.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

**General Physical Form:** Solid Odor, Color, Grade: Clear Film **Odor threshold** Not Applicable pН Not Applicable **Melting point** Not Applicable **Boiling Point** Not Applicable **Flash Point** No flash point Not Applicable **Evaporation rate** Flammability (solid, gas) Not Classified Not Applicable Flammable Limits(LEL) Flammable Limits(UEL) Not Applicable **Vapor Pressure** Not Applicable Not Applicable **Vapor Density** 

#### 3M(TM) Quantum Dot Enhancement Film-360r 01/22/16

**Density** Not Applicable No Data Available **Specific Gravity** Solubility in Water Not Applicable Not Applicable Solubility- non-water Partition coefficient: n-octanol/ water Not Applicable Not Applicable **Autoignition temperature** Not Applicable **Decomposition temperature** Not Applicable Viscosity

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

#### 10.2. Chemical stability

Stable.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

None known.

#### 10.5. Incompatible materials

None known.

## 10.6. Hazardous decomposition products

<u>Substance</u> <u>Condition</u>

None known.

Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products may occur as a result of oxidation, heating, or reaction with another material.

# **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:**

No health effects are expected. No known health effects.

#### Skin Contact:

No health effects are expected. Contact with the skin during product use is not expected to result in significant irritation.

Page 4 of 7

### **Eye Contact:**

No health effects are expected. Contact with the eyes during product use is not expected to result in significant irritation.

#### **Ingestion:**

No health effects are expected.

No known health effects.

#### **Additional Information:**

This product, when used under reasonable conditions and in accordance with the 3M directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

#### **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	Ingestion		No data available; calculated ATE > 5,000 mg/kg

ATE = acute toxicity estimate

#### **Skin Corrosion/Irritation**

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### Serious Eye Damage/Irritation

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### **Skin Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

### **Respiratory Sensitization**

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### **Germ Cell Mutagenicity**

For the component/components, either no data are currently available or the data are not sufficient for classification.

### Carcinogenicity

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### **Reproductive Toxicity**

#### Reproductive and/or Developmental Effects

For the component/components, either no data are currently available or the data are not sufficient for classification.

### Target Organ(s)

# **Specific Target Organ Toxicity - single exposure**

For the component/components, either no data are currently available or the data are not sufficient for classification.

#### Specific Target Organ Toxicity - repeated exposure

For the component/components, either no data are currently available or the data are not sufficient for classification.

# **Aspiration Hazard**

For the component/components, either no data are currently available or the data are not sufficient for classification.

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.

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

# **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 - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - No Delayed Hazard - No

## 15.2. State Regulations

Contact 3M for more information.

### **15.3.** Chemical Inventories

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

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: 0 Flammability: 1 Instability: 0 Special Hazards: None

Page 6 of 7

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.

Document Group:35-8080-0Version Number:1.00Issue Date:01/22/16Supercedes Date:Initial Issue

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M

3M USA SDSs are available at www.3M.com

Page 7 of 7