



# SAFETY DATA SHEET

**MATERION**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Trade name or designation of the mixture** MEG-150 Epoxy  
**Registration number** -  
**Document number** F01  
**Synonyms** None.  
**Issue date** 28-May-2021  
**Version number** 01

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

**Company name** Materion Advanced Materials  
**Address** 6070 Parkland Boulevard  
Mayfield Heights, OH 44124  
United States  
**Division**  
**Telephone** 1.216.383.4019  
**e-mail** ehs@materion.com  
**Contact person** Theodore Knudson

**1.4. Emergency telephone number** See Section 16.

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Manufacture of computer, electronic and optical products, electrical equipment  
Scientific research and development  
Other: Manufacture of medical and defense equipment  
**Uses advised against** Professional uses: Public domain (administration, education, entertainment, services, craftsmen)  
Consumer uses: Private households (= general public = consumers)

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**Address** 6070 Parkland Boulevard  
Mayfield Heights, OH 44124  
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**e-mail** ehs@materion.com  
**Contact person** Theodore Knudson

**1.4. Emergency telephone number** See Section 16.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Health hazards

|                           |             |  |
|---------------------------|-------------|--|
| Acute toxicity, dermal    | Category 4  | H312 - Harmful in contact with skin.         |
| Skin corrosion/irritation | Category 2  | H315 - Causes skin irritation.               |
| Skin sensitisation        | Category 1B |  |
| Germ cell mutagenicity    | Category 2  | H341 - Suspected of causing genetic defects. |

Carcinogenicity

Category 2

H351 - Suspected of causing cancer.

Specific target organ toxicity - single exposure Category 1

H370 - Causes damage to organs.

**Hazard summary**

Harmful in contact with skin. Causes skin irritation. Suspected of causing cancer. Suspected of causing genetic defects. May cause an allergic skin reaction. Causes damage to organs.

**2.2. Label elements****Label according to Regulation (EC) No. 1272/2008 as amended****Contains:**

Methanol, Polyamide, proprietary ingredients, RESORCINOL DIGLYCIDYL ETHER;1,3-BIS(2,3-EPOXYPROPOXY)BENZENE

**Hazard pictograms****Signal word**

Danger

**Hazard statements**

H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H341 Suspected of causing genetic defects.  
 H351 Suspected of causing cancer.  
 H370 Causes damage to organs.

**Precautionary statements****Prevention**

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P281 Use personal protective equipment as required.  
 P272 Contaminated work clothing should not be allowed out of the workplace.

**Response**

P332 + P313 If skin irritation occurs: Get medical advice/attention.  
 P363 Wash contaminated clothing before reuse.  
 P308 + P313 IF exposed or concerned: Get medical advice/attention.

**Storage**

P405 Store locked up.

**Disposal**

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

**Supplemental label information**

For further information, please contact the Product Stewardship Department at +1.216.383.4019.

**2.3. Other hazards**

None known.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****General information**

| Chemical name   | %       | CAS-No. / EC No.      | REACH Registration No. | Index No.    | Notes |
|---|---------|-----------------------|------------------------|--------------|-------|
| Polyamide   | 45 - 75 | 63428-84-2            | -                      | -            |       |
| <b>Classification: -</b>                                      |         |                       |                        |              |       |
| RESORCINOL DIGLYCIDYL ETHER;1,3-BIS(2,3-EPOXYPROPOXY) BENZENE | 20 - 22 | 101-90-6<br>202-987-5 | -                      | 603-065-00-9 |       |
| <b>Classification: -</b>                                      |         |                       |                        |              |       |
| proprietary ingredients                                       | 7 - 13  | N/A                   | -                      | -            |       |
| <b>Classification: -</b>                                      |         |                       |                        |              |       |

| Chemical name   | %     | CAS-No. / EC No.     | REACH Registration No. | Index No.    | Notes |
|---|-------|----------------------|------------------------|--------------|-------|
| Methanol  | 0 - 2 | 67-56-1<br>200-659-6 | -                      | 603-001-00-X | #     |
| <b>Classification:</b> Flam. Liq. 2;H225, Acute Tox. 3;H301, Acute Tox. 3;H311, Acute Tox. 3;H331, STOT SE 1;H370 |       |                      |                        |              |       |
| <b>Specific Concentration Limits:</b> STOT SE 1;H370: C >= 10 %   |       |                      |                        |              |       |

Other components below reportable levels ≤ 18

## SECTION 4: First aid measures

**General information** If you feel unwell, seek medical advice (show the label where possible). Wash contaminated clothing before reuse.

### 4.1. Description of first aid measures

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

**Skin contact** If skin irritation occurs: Get medical advice/attention. Wash off with soap and water. Wash contaminated clothing before reuse. Get medical attention if irritation develops and persists.

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

**Ingestion** No adverse effects due to ingestion are expected.

**4.2. Most important symptoms and effects, both acute and delayed** May cause an allergic skin reaction.

**4.3. Indication of any immediate medical attention and special treatment needed** Keep victim warm. Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. Treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

## SECTION 5: Firefighting measures

**General fire hazards** None known.

### 5.1. Extinguishing media

**Suitable extinguishing media** Water fog. Water spray. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Do not use a solid water stream as it may scatter and spread fire.

**5.2. Special hazards arising from the substance or mixture** None known.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Special firefighting procedures** In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.

**For emergency responders** Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

**6.2. Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

**6.3. Methods and material for containment and cleaning up** Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect and dispose of spillage as indicated in section 13 of the SDS. Flush area with water.

**6.4. Reference to other sections** For personal protection, see section 8. For waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Obtain special instructions before use. Wear appropriate personal protective equipment. Do not eat, drink or smoke when using the product. Observe good industrial hygiene practices.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in accordance with local/regional/national/international regulation.

### 7.3. Specific end use(s)

Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Spain. Occupational Exposure Limits

| Components  | Type | Value                            |
|---|------|----------------------------------|
| Methanol (CAS 67-56-1)                              | TWA  | 266 mg/m <sup>3</sup><br>200 ppm |
| Titanium oxide (TiO <sub>2</sub> ) (CAS 13463-67-7) | TWA  | 10 mg/m <sup>3</sup>             |

##### EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU

| Components             | Type | Value                            |
|------------------------|------|----------------------------------|
| Methanol (CAS 67-56-1) | TWA  | 260 mg/m <sup>3</sup><br>200 ppm |

#### Biological limit values

##### Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4

| Components             | Value   | Determinant | Specimen | Sampling Time |
|------------------------|---------|-------------|----------|---------------|
| Methanol (CAS 67-56-1) | 15 mg/l | Metanol     | Urine    | *             |

\* - For sampling details, please see the source document.

#### Recommended monitoring procedures

Follow standard monitoring procedures.

#### Derived no effect levels (DNELs)

Not available.

#### Predicted no effect concentrations (PNECs)

Not available.

#### Exposure guidelines

##### Spain OELs: Skin designation

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

### 8.2. Exposure controls

#### Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

#### Individual protection measures, such as personal protective equipment

##### General information

Wear chemical protective equipment that is specifically recommended by the manufacturer. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

##### Eye/face protection

Wear safety glasses with side shields (or goggles).

##### Skin protection

###### - Hand protection

Wear appropriate chemical resistant gloves.

###### - Other

Avoid contact with the skin. Wear suitable protective clothing.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

##### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

|  |  |
|--|--|
| <b>Hygiene measures</b>                | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Keep away from food and drink. Wash hands after handling and before eating. Observe any medical surveillance requirements. When using do not smoke. Contaminated work clothing should not be allowed out of the workplace. When using, do not eat, drink or smoke. |
| <b>Environmental exposure controls</b> | Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.   |

## SECTION 9: Physical and chemical properties

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

#### Appearance

**Physical state** Solid.

**Form** Film.

**Colour** White.

**Odour** None.

**Odour threshold** Not applicable.

**pH** Not applicable.

**Melting point/freezing point** -97,8 °C (-144,04 °F) estimated / Not applicable.

**Initial boiling point and boiling range** Not applicable.

**Flash point** Not applicable.

**Evaporation rate** Not applicable.

**Flammability (solid, gas)** None known.

#### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not applicable.

**Flammability limit - lower (%) temperature** Not applicable.

**Flammability limit - upper (%)** Not applicable.

**Flammability limit - upper (%) temperature** Not applicable.

**Explosive limit - lower (%)** Not applicable.

**Explosive limit - lower (%) temperature** Not applicable.

**Explosive limit – upper (%)** Not applicable.

**Explosive limit - upper (%) temperature** Not applicable.

**Vapour pressure** Not applicable.

**Vapour density** Not applicable.

**Relative density** Not applicable.

#### Solubility(ies)

**Solubility (water)** Negligible.

**Partition coefficient (n-octanol/water)** Not applicable.

**Auto-ignition temperature** Not applicable.

**Decomposition temperature** Not applicable.

**Viscosity** Not applicable.

**Explosive properties** Not explosive.

**Oxidising properties** Not oxidising.

### 9.2. Other information

**Density** 1,36 g/cm3 estimated

## SECTION 10: Stability and reactivity

|   |  |
|---|--|
| <b>10.1. Reactivity</b>                         | Strong oxidising agents.   |
| <b>10.2. Chemical stability</b>                 | Material is stable under normal conditions.  |
| <b>10.3. Possibility of hazardous reactions</b> | None.  |
| <b>10.4. Conditions to avoid</b>                | Contact with incompatible materials.   |
| <b>10.5. Incompatible materials</b>             | Strong oxidising agents.   |
| <b>10.6. Hazardous decomposition products</b>   | At thermal decomposition temperatures, carbon monoxide and carbon dioxide. Ammonia. Nitrogen oxides (NOx). |

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | May cause irritation to the respiratory system.  |
| <b>Skin contact</b> | Toxic in contact with skin. Causes skin irritation. May cause an allergic skin reaction. |
| <b>Eye contact</b>  | Causes serious eye irritation. Direct contact with eyes may cause temporary irritation.  |
| <b>Ingestion</b>    | Harmful if swallowed.  |

**Symptoms** May cause an allergic skin reaction.

### 11.1. Information on toxicological effects

|  |   |
|--|---|
| <b>Acute toxicity</b>                    | Harmful in contact with skin.   |
| <b>Skin corrosion/irritation</b>         | Causes skin irritation.   |
| <b>Serious eye damage/eye irritation</b> | Causes serious eye irritation. Direct contact with eyes may cause temporary irritation. |
| <b>Respiratory sensitisation</b>         | Not a respiratory sensitizer.   |
| <b>Skin sensitisation</b>                | May cause an allergic skin reaction.  |
| <b>Germ cell mutagenicity</b>            | Suspected of causing genetic defects.   |
| <b>Carcinogenicity</b>                   | Suspected of causing cancer.  |

#### IARC Monographs. Overall Evaluation of Carcinogenicity

RESORCINOL DIGLYCIDYL ETHER;1,3-BIS(2,3-EPOXYPROPOXY)BENZENE (CAS 101-90-6) 2B Possibly carcinogenic to humans.

|   |                           |
|---|---------------------------|
| <b>Reproductive toxicity</b>                              | Not classified.           |
| <b>Specific target organ toxicity - single exposure</b>   | Causes damage to organs.  |
| <b>Specific target organ toxicity - repeated exposure</b> | Not classified.           |
| <b>Aspiration hazard</b>                                  | Not an aspiration hazard. |
| <b>Mixture versus substance information</b>               | Not available.            |
| <b>Other information</b>                                  | Not available.            |

## SECTION 12: Ecological information

**12.1. Toxicity** Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

| Product                | Species        | Test Results                                      |
|------------------------|----------------|---|
| MEG-150 Epoxy          |                |   |
| <b>Aquatic</b>         |                |   |
| <i>Acute</i>           |                |   |
| Crustacea              | EC50           | Daphnia 61866,1875 mg/l, 48 hours estimated       |
| Fish                   | LC50           | Fish 62590,7539 mg/l, 96 hours estimated          |
| <b>Components</b>      | <b>Species</b> | <b>Test Results</b>                               |
| Methanol (CAS 67-56-1) |                |   |
| <b>Aquatic</b>         |                |   |
| <i>Acute</i>           |                |   |
| Crustacea              | EC50           | Water flea (Daphnia magna) > 10000 mg/l, 48 hours |

| Components   | Species   | Test Results   |
|--|---|--|
| Fish   | LC50  | Fathead minnow ( <i>Pimephales promelas</i> ) > 100 mg/l, 96 hours |
| <b>12.2. Persistence and degradability</b>             | Not available.  |  |
| <b>12.3. Bioaccumulative potential</b>                 | Not available.  |  |
| <b>Partition coefficient n-octanol/water (log Kow)</b> |   |  |
| Methanol   |   | -0,77  |
| <b>Bioconcentration factor (BCF)</b>                   | Not available.  |  |
| <b>12.4. Mobility in soil</b>                          | Not available.  |  |
| <b>12.5. Results of PBT and vPvB assessment</b>        | This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. |  |
| <b>12.6. Other adverse effects</b>                     | Not available.  |  |

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|                                     |  |
|-------------------------------------|--|
| <b>Residual waste</b>               | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| <b>Contaminated packaging</b>       | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.       |
| <b>EU waste code</b>                | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Disposal methods/information</b> | Dispose of contents/container in accordance with local/regional/national/international regulations. Collect and reclaim or dispose in sealed containers at licensed waste disposal site.                         |
| <b>Special precautions</b>          | Dispose in accordance with all applicable regulations.   |

## SECTION 14: Transport information

### ADR

14.1. - 14.6.: Not regulated as dangerous goods.

### RID

14.1. - 14.6.: Not regulated as dangerous goods.

### ADN

14.1. - 14.6.: Not regulated as dangerous goods.

### IATA

14.1. - 14.6.: Not regulated as dangerous goods.

### IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

##### **Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

##### **Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended**

Not listed.

##### **Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

##### **Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

##### **Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

##### **Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

**Authorisations**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

**Restrictions on use**

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Methanol (CAS 67-56-1)

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

RESORCINOL DIGLYCIDYL ETHER;1,3-BIS(2,3-EPOXYPROPOXY)BENZENE (CAS 101-90-6)

**Other EU regulations**

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Methanol (CAS 67-56-1)

**Other regulations**

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended.

**National regulations**

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended. According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure.

**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out.

**SECTION 16: Other information**

**List of abbreviations**

CAS: Chemical Abstract Service.  
IATA: International Air Transport Association.  
IMDG: International Maritime Dangerous Goods.  
MARPOL: International Convention for the Prevention of Pollution from Ships.  
STEL: Short term exposure limit.  
TWA: Time Weighted Average.  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
CEN: European Committee for Standardization.  
PBT: Persistent, bioaccumulative, toxic.  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.  
vPvB: Very persistent and very bioaccumulative.  
IBC: Intermediate Bulk Container.

**References**

Not available.

**Information on evaluation method leading to the classification of mixture**

The classification for health and environmental hazards is derived by a combination of calculator methods and test data, if available.

**Training information**

Not available.

**Further information**

Transportation Emergency  
Call Chemtrec at:  
International: 703.741.5970  
Spain: 900.868.538  
Switzerland: 0800.564.402  
Chemtrec's toll free, mobile-enabled number in Germany – 0800 1817059

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