



Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 3/20/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : Azon | Azo-Cap 180

1.2. Recommended use and restrictions on use

Recommended use : Electrical potting/encapsulation
Restrictions on use : All other uses not recommended above

1.3. Supplier

Azon USA Inc.
2204 Ravine Rd
Kalamazo, Michigan 49004
United states of America
T 269-385-5942

1.4. Emergency telephone number

Emergency number : For Hazardous Materials or Dangerous Goods Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night: 1-800-424-9300 (Toll Free, USA) / 703-527-3887 (Virginia, USA)
CCN 2189

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Carcinogenicity Category 2 Suspected of causing cancer
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)

:



Signal word (GHS US)

: Warning

Hazard statements (GHS US)

: Suspected of causing cancer

Precautionary statements (GHS US)

: Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

If exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|--|---------------------|------------|--|
| Diethylene Glycol-phthalic Anhydride Polymer | CAS-No.: 32472-85-8 | 8 – 12 | Aquatic Chronic 3, H412 |
| Tris(2-chloro-1-methylethyl) phosphate | CAS-No.: 13674-84-5 | 6 – 10 | Acute Tox. 4 (Oral), H302 Aquatic Chronic 3, H412 |
| Diethylene glycol | CAS-No.: 111-46-6 | 1 – 3 | Acute Tox. 4 (Oral), H302 Eye Irrit. 2B, H320 |
| Carbon black | CAS-No.: 1333-86-4 | 0.1 – 0.25 | Carc. 2, H351 STOT RE 1, H372 |

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|---|
| First-aid measures general | : IF exposed or concerned: Get medical advice/attention. First aider: Pay attention to self-protection. Never give anything by mouth to an unconscious person. Give artificial respiration if necessary. Induce artificial respiration with mask fitted with one-way valve or other suitable device but not mouth-to-mouth. |
| First-aid measures after inhalation | : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell. |
| First-aid measures after skin contact | : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. |
| First-aid measures after eye contact | : 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. |
| First-aid measures after ingestion | : Rinse mouth out with water. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Call a poison center/doctor/physician if you feel unwell. |

4.2. Most important symptoms and effects (acute and delayed)

| | |
|-------------------------------------|--|
| Symptoms/effects after skin contact | : Repeated or prolonged contact may cause slight irritation to the skin. |
| Symptoms/effects after eye contact | : May cause eye irritation. |
| Symptoms/effects after ingestion | : Ingestion may cause nausea and vomiting. |
| Chronic symptoms | : Suspected of causing cancer. |

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Dry chemical, CO₂, dry sand, or alcohol-resistant foam.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.
Hazardous decomposition products in case of fire : Carbon dioxide. Toxic fumes may be released. Carbon monoxide. Nitrous oxide.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all personal contact including breathing in the mist, spray, vapors. Do not take actions involving personal risks. Absorb spillage to prevent material-damage. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Evacuate the danger area. If outdoors, move to an area upwind of the danger area. If possible without taking personal risks, remove ignition sources, ventilate area. Prevent other non-emergency personnel from entering the danger area.

6.1.2. For emergency responders

Protective equipment : Wear the recommended personal protective equipment. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate personnel to a safe area. Ventilate spillage area. Stop leak if safe to do so.

6.2. Environmental precautions

Do not let the product reach soil, drains, sewers, or surface and ground water.

6.3. Methods and material for containment and cleaning up

For containment : Contain with non-combustible inert absorbent.
Methods for cleaning up : Take up in non-combustible inert absorbent and place into container for disposal. Contaminated absorbent material may pose the same hazard as the spilt product. Decontaminate surfaces and equipment with water and detergent. Until a sufficient level of dilution is achieved, the decontamination water may pose the same hazards as the product. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-----------------------------------|--|
| Additional hazards when processed | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| Precautions for safe handling | : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing mist, spray, vapors, gas. Take precautionary measures against static discharge. |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|------------------------|--|
| Storage conditions | : Store in a cool, dry and well-ventilated area away from incompatible substances. Protect from sunlight. Keep container closed when not in use. |
| Incompatible materials | : Strong acids, strong bases and strong oxidants. |
| Packaging materials | : Store always product in container of same material as original container. |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| |
|--------------------|
| Azon Azo-Cap 180 |
|--------------------|

| |
|-------------------------------------|
| No additional information available |
|-------------------------------------|

| |
|---|
| Diethylene Glycol-phthalic Anhydride Polymer (32472-85-8) |
|---|

| |
|-------------------------------------|
| No additional information available |
|-------------------------------------|

| |
|------------------------------|
| Diethylene glycol (111-46-6) |
|------------------------------|

| |
|-------------------------------------|
| No additional information available |
|-------------------------------------|

| |
|--------------------------|
| Carbon black (1333-86-4) |
|--------------------------|

| | |
|--|--|
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Carbon black |
| ACGIH OEL TWA | 3 mg/m³ (I - Inhalable particulate matter) |
| Remark (ACGIH) | TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans) |
| Regulatory reference | ACGIH 2024 |

| | |
|---|--------------------------|
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Carbon black |
| OSHA PEL TWA | 3.5 mg/m³ |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |

| |
|---|
| Tris(2-chloro-1-methylethyl) phosphate (13674-84-5) |
|---|

| |
|-------------------------------------|
| No additional information available |
|-------------------------------------|

8.2. Appropriate engineering controls

| | |
|----------------------------------|---|
| Appropriate engineering controls | : Ensure good ventilation of the work station. Use general ventilation, local exhaust ventilation or process enclosure to keep the airborne concentrations below the permissible exposure limits. |
|----------------------------------|---|

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Environmental exposure controls : Avoid release to the environment. Take measures to reduce or limit air emissions and releases to soil and the aquatic environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Personal protective equipment should be chosen according to national standards and in discussion with the supplier of the protective equipment. Wear recommended personal protective equipment.

Hand protection:

Wear protective gloves

Eye protection:

Wear safety glasses which protect from splashes

Skin and body protection:

Body protection should be chosen depending on activity and possible exposure. Wear suitable protective clothing

Respiratory protection:

Use NIOSH approved respirator if ventilation is inadequate. SCBA for emergency responders. Must be used in accordance with an OSHA complaint respiratory protection program.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------|
| Physical state | : Liquid. |
| Appearance | : Liquid. |
| Color | : Black |
| Odor | : No data available |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : 1.25 25 °C |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 1730 cP (25 °C) |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Incompatible materials.

10.5. Incompatible materials

Oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Nitrogen oxides. Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Diethylene Glycol-phthalic Anhydride Polymer

| | |
|-----------------|--------------|
| LD50 dermal rat | > 2000 mg/kg |
|-----------------|--------------|

Diethylene glycol

| | |
|---------------|-------------|
| LD50 oral rat | 12000 mg/kg |
|---------------|-------------|

| | |
|--------------------|-------------|
| LD50 dermal rabbit | 11890 mg/kg |
|--------------------|-------------|

Carbon black

| | |
|---------------|--------------------------|
| LD50 oral rat | > 8000 mg/kg body weight |
|---------------|--------------------------|

| | |
|--------------------|--------------------------|
| LD50 dermal rabbit | > 2000 mg/kg body weight |
|--------------------|--------------------------|

Tris(2-chloro-1-methylethyl) phosphate

| | |
|---------------|------------------------------|
| LD50 oral rat | 930 – 1550 mg/kg body weight |
|---------------|------------------------------|

| | |
|--------------------|--------------------------|
| LD50 dermal rabbit | > 2000 mg/kg body weight |
|--------------------|--------------------------|

| | |
|-----------------------|-------------|
| LC50 Inhalation - Rat | > 7 mg/l/4h |
|-----------------------|-------------|

Skin corrosion/irritation : Not classified

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|--|--|
| Carbon black | |
| Skin corrosion/irritation, rabbit | Not irritating |
| Tris(2-chloro-1-methylethyl) phosphate | |
| Additional information | Not irritating to rabbits on cutaneous application |
| Serious eye damage/irritation | : Not classified |
| Diethylene glycol | |
| Serious eye damage/irritation, rabbit | Slightly irritating |
| Carbon black | |
| Serious eye damage/irritation, rabbit | Not irritating |
| Tris(2-chloro-1-methylethyl) phosphate | |
| Additional information | Not irritating to rabbits on ocular application |
| Respiratory or skin sensitization | : Not classified |
| Carbon black | |
| Local Lymph Node Assay | Not sensitive |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Suspected of causing cancer. |
| Diethylene glycol | |
| NOAEL (chronic,oral,animal/male,2 years) | 1210 mg/kg body weight |
| NOAEL (chronic,oral,animal/female,2 years) | 1160 mg/kg body weight |
| Carbon black | |
| IARC group | 2B - Possibly carcinogenic to humans |
| Reproductive toxicity | : Not classified |
| Tris(2-chloro-1-methylethyl) phosphate | |
| LOAEL (animal/female, F0/P) | 99 mg/kg body weight |
| NOAEL (animal/male, F0/P) | 85 mg/kg body weight |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Diethylene glycol | |
| LOAEL (oral,rat,90 days) | 40000 mg/kg body weight |
| Carbon black | |
| LOAEC (inhalation, rat, dust/mist/fume, 90 days) | 0.0071 mg/l air |
| NOAEL (oral,rat,90 days) | > 1000 mg/kg body weight |
| NOAEC (inhalation,rat,dust/mist/fume,90 days) | 0.0011 mg/l air |
| STOT-repeated exposure | Causes damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | : Not classified |
| Viscosity, kinematic | : No data available |
| Symptoms/effects after skin contact | : Repeated or prolonged contact may cause slight irritation to the skin. |
| Symptoms/effects after eye contact | : May cause eye irritation. |
| Symptoms/effects after ingestion | : Ingestion may cause nausea and vomiting. |

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chronic symptoms : Suspected of causing cancer.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Diethylene Glycol-phthalic Anhydride Polymer

| | |
|-----------------|------------|
| LC50 - Fish [1] | ≥ 100 mg/l |
| ErC50 algae | 157.4 mg/l |

Diethylene glycol

| | |
|----------------------|-------------------|
| LC50 - Fish [1] | 75200 mg/l |
| EC50 96h - Algae [1] | 6500 – 13000 mg/l |
| EC50 96h - Algae [2] | 9362 mg/l |
| NOEC (chronic) | ≥ 1000 mg/l |

Carbon black

| | |
|----------------------|--------------|
| EC50 - Crustacea [1] | > 1000 mg/l |
| EC50 72h - Algae [1] | > 10000 mg/l |
| EC50 72h - Algae [2] | > 10000 mg/l |

Tris(2-chloro-1-methylethyl) phosphate

| | |
|----------------------|----------|
| LC50 - Fish [1] | 51 mg/l |
| EC50 - Crustacea [1] | 131 mg/l |
| EC50 72h - Algae [1] | 82 mg/l |
| EC50 72h - Algae [2] | 33 mg/l |
| NOEC (chronic) | 32 mg/l |
| NOEC chronic fish | 5.2 mg/l |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Diethylene Glycol-phthalic Anhydride Polymer

| | |
|---|-----------|
| Partition coefficient n-octanol/water (Log Pow) | 0.9 – 1.9 |
|---|-----------|

Diethylene glycol

| | |
|---|-------|
| Partition coefficient n-octanol/water (Log Pow) | -1.47 |
|---|-------|

12.4. Mobility in soil

No additional information available

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

| | |
|--|--|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. Dispose of this material and its container at hazardous or special waste collection point. Refer to all applicable national, international and local regulations or provisions. |
| Additional information | : Do not re-use empty containers. |
| Ecological information | : Avoid release to the environment. |

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

| DOT | IMDG | IATA |
|---|---------------|---------------|
| 14.1. UN number | | |
| Not regulated for transport | | |
| 14.2. Proper Shipping Name | | |
| Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | |
| Not regulated | Not regulated | Not regulated |
| 14.4. Packing group | | |
| Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | |
| Not regulated | Not regulated | Not regulated |
| No supplementary information available | | |

14.6. Special precautions for user

DOT
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

Diethylene Glycol-phthalic Anhydride Polymer (32472-85-8)

Listed on the Canadian DSL (Domestic Substances List)

Diethylene glycol (111-46-6)

Listed on the Canadian DSL (Domestic Substances List)

Carbon black (1333-86-4)

Listed on the Canadian DSL (Domestic Substances List)

Tris(2-chloro-1-methylethyl) phosphate (13674-84-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Diethylene glycol (111-46-6)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Carbon black (1333-86-4)

Listed on IARC (International Agency for Research on Cancer)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Tris(2-chloro-1-methylethyl) phosphate (13674-84-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations



WARNING:

This product can expose you to Aniline, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Azon | Azo-Cap 180

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Data sources : SDS prepared by CHEMTREC.

| Full text of H-phrases | |
|------------------------|--|
| H302 | Harmful if swallowed |
| H320 | Causes eye irritation |
| H351 | Suspected of causing cancer |
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H412 | Harmful to aquatic life with long lasting effects |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.