Azon | Azo-Cap 180

Safety Data Sheet

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)
Issue date: 3/20/2024 Revision date: 3/31/2026 Supersedes: 3/20/2024 Version: 1.1

SECTION 1 Identification

1.1. Product identifier

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

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

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

1.4. Supplier's details

Azon USA Inc.
2204 Ravine Rd
Kalamazoo, Michigan 49004
USA
T 269-385-5942

1.5. Emergency phone 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
Back-up Emergency Number: +1 703-741-5970 (Washington, DC)

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Carcinogenicity, Category 2	H351	Suspected of causing cancer.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Warning
Hazard statements (GHS US) : H351 - 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, and hearing protection.
If exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Reaction product of tetrabromophthalic anhydride with 2,2 oxydiethanol and methyloxirane	CAS-No.: 77098-07-8	30 – 34	Aquatic Acute 2, H401
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
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	0.5 – 0.75	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 necessary 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 areas 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/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. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Treat symptomatically.

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.

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.

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.

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

6.2. Methods and materials 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.

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

SECTION 7 Handling and storage

7.1. Precautions for safe handling

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.
Additional hazards when processed	:	Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including 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	:	Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Carbon black (1333-86-4)

USA - ACGIH® - Threshold Limit Values	
Local name	Carbon black
ACGIH® TLV® 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 2025
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
USA - NIOSH - Occupational Exposure Limits	
Local name	Carbon black
NIOSH REL 10h TWA	3.5 mg/m³ (without PAHs)
Remark (NIOSH)	When PAHs are present, NIOSH considers carbon black to be a potential occupational carcinogen
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

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.
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, such as 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 compliant respiratory protection program.

Personal protective equipment symbol(s):

SECTION 9 Physical and chemical properties

9.1. 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
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
Particle characteristics	:	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

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 oral	15600 mg/kg
LD50 dermal rabbit	11890 mg/kg
LD50 dermal	13300 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

Reaction product of tetrabromophthalic anhydride with 2,2 oxydiethanol and methyloxirane	
LD50 oral rat	> 2000 mg/kg body weight

Reaction product of tetrabromophthalic anhydride with 2,2 oxydiethanol and methyloxirane	
LD50 dermal rabbit	> 20000 mg/kg body weight

Skin corrosion/irritation : Not classified

Carbon black	
Skin corrosion/irritation, rabbit	Not irritating

Tris(2-chloro-1-methylethyl) phosphate	
Additional information	Not irritating to rabbits on cutaneous application

Reaction product of tetrabromophthalic anhydride with 2,2 oxydiethanol and methyloxirane	
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

Reaction product of tetrabromophthalic anhydride with 2,2 oxydiethanol and methyloxirane	
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

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.

SECTION 12 Ecological information

12.1. Ecotoxicity

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

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

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

Tris(2-chloro-1-methylethyl) phosphate	
NOEC chronic fish	5.2 mg/l

Reaction product of tetrabromophthalic anhydride with 2,2 oxydiethanol and methyloxirane	
LC50 - Fish [1]	12 mg/l
EC50 96h - Algae [1]	4.391 mg/l
EC50 96h - Algae [2]	9.052 mg/l
NOEC chronic fish	1.258 mg/l

12.2. Persistence and degradability

Azon | Azo-Cap 180	
Persistence and degradability	Not rapidly degradable

Diethylene Glycol-phthalic Anhydride Polymer	
Persistence and degradability	Not rapidly degradable

Diethylene glycol	
Persistence and degradability	Rapidly degradable

Carbon black	
Persistence and degradability	Not rapidly degradable

Tris(2-chloro-1-methylethyl) phosphate	
Persistence and degradability	Not rapidly degradable

Reaction product of tetrabromophthalic anhydride with 2,2 oxydiethanol and methyloxirane	
Persistence and degradability	Not rapidly degradable

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

12.5. Other adverse effects

Ozone : Not classified
Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

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 waste information	:	Avoid release to the environment.

SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

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

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IMDG
Not regulated

IATA
Not regulated

SECTION 15 Regulatory information

15.1. 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)

Reaction product of tetrabromophthalic anhydride with 2,2 oxydiethanol and methyloxirane (77098-07-8)

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. 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.

Component	State or local regulations
Diethylene glycol(111-46-6)	U.S. - Pennsylvania - RTK (Right to Know) List
Carbon black(1333-86-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Revision date : 3/31/2026

Issue date : 3/20/2024

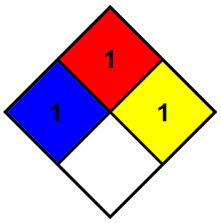
Data sources : SDS prepared by CHEMTREC.

Full text of hazard classes and H-statements	
H302	Harmful if swallowed
H320	Causes eye irritation
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



Indication of changes:		
Section	**Changed item**	**Comments**
		Updated to HazCom2024

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.