PENNCOAT 227 GRAY - RESIN PART A

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)
Date of issue: 3/10/2026 Revision date: 4/2/2026 Supersedes: 4/1/2026 Version: 4.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product code : PENNCOAT 227

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Industrial use
Restrictions on use : The product is intended for professional use

1.4. Supplier's details

Armor Limited, Inc
2410 US-15 South
Sumter, Sumter, SC
USA

1.5. Emergency phone number

Emergency number : CHEMTREC 1-800-424-9300 North America, +1-800-527-3887 International

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Germ cell mutagenicity, Category 2	H341	Suspected of causing genetic defects.
Carcinogenicity, Category 1A	H350	May cause cancer.
Specific target organ toxicity — Repeated exposure, Category 2	H373	May cause damage to organs through prolonged or repeated exposure.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H341 - Suspected of causing genetic defects.
H350 - May cause cancer.
H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust, fume, gas, mist, vapors, spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves.
P302+P352 - If on skin: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P314 - Get medical advice or attention if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P405 - Store locked up.
P501 - 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
OXIRANE	CAS-No.: 2210-79-9	5 – 10	Skin Irrit. 2, H315 Skin Sens. 1, H317 Muta. 2, H341
Titanium Dioxide	CAS-No.: 13463-67-7	> 4.5	Carc. 2, H351
bisphenol-A-(epichlorhydrin) epoxy resin	CAS-No.: 25068-38-6	3.6 – 4.05	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
MICROCRYSTALLINE SILICA	CAS-No.: 14808-60-7	≤ 1	Carc. 1A, H350 STOT RE 2, H373
GLYCIDOXYPROPYLTRIMETHOXYSILANE	CAS-No.: 2530-83-8	1 – 5	Eye Dam. 1, H318
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]	CAS-No.: 68609-97-2	0.45 – 0.9	Skin Irrit. 2, H315 Skin Sens. 1, H317
Carbon Black, amorphous	CAS-No.: 1333-86-4	> 0.18	Acute Tox. 4 (Inhalation:dust,mist), H332 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-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : 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 : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

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 : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

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

For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Environmental precautions : Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

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. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

MICROCRYSTALLINE SILICA (14808-60-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Silica crystaline - quartz
ACGIH® TLV® TWA	0.025 mg/m³ (Respirable fraction)
Remark (ACGIH®)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2019

Titanium Dioxide (13463-67-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Titanium dioxide
ACGIH® TLV® TWA	10 mg/m³
Remark (ACGIH®)	TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Titanium dioxide (Total dust)
OSHA PEL TWA	15 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - Cal/OSHA - Occupational Exposure Limits	
Local name	Titanium dioxide, as Ti
Cal/OSHA PEL (OEL TWA)	10 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)

Titanium Dioxide (13463-67-7)	
USA - NIOSH - Occupational Exposure Limits	
Local name	Titanium dioxide (Total dust)
NIOSH REL 10h TWA	2.4 mg/m³ (fine) 0.3 mg/m³ (ultrafine)
Remark (NIOSH)	Ca = Potential occupational carcinogens (ultrafine particles)
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

Carbon Black, amorphous (1333-86-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Carbon black
ACGIH® TLV® TWA	3 mg/m³ (Inhalable fraction)
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 - Cal/OSHA - Occupational Exposure Limits	
Local name	Carbon black
Cal/OSHA PEL (OEL TWA)	3.5 mg/m³
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-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.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Color	:	Grey
Odor	:	characteristic
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	248 °F Based on data available for ingredients
Flash point	:	200.1 °F Based on data available for ingredients
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Density	:	10.64 lb/gal
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
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.

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).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

OXIRANE (2210-79-9)	
LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rat	> 2000 mg/kg (Rat, Dermal)
LC50 Inhalation - Rat	6.09 mg/l (4 h, Rat, Inhalation)
ATE US (vapors)	6.09 mg/l/4h
ATE US (dust, mist)	6.09 mg/l/4h

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)	
LD50 oral rat	8025 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	4250 mg/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5.3 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
ATE US (oral)	8025 mg/kg body weight
ATE US (dermal)	4250 mg/kg body weight

bisphenol-A-(epichlorhydrin) epoxy resin (25068-38-6)	
LD50 oral rat	> 2000 mg/kg (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal)

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] (68609-97-2)	
LD50 oral rat	26800 mg/kg body weight (Rat, Male, Expert judgement, Oral)
ATE US (oral)	26800 mg/kg body weight

Titanium Dioxide (13463-67-7)	
LD50 oral rat	> 5000 mg/kg body weight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 6.82 mg/l (Other, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))

Carbon Black, amorphous (1333-86-4)	
LD50 oral rat	> 8000 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	> 3000 mg/kg (Rabbit, Literature study, Dermal)
LC50 Inhalation - Rat	> 4.6 mg/l air (4 h, Rat, Experimental value, Inhalation)
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

MICROCRYSTALLINE SILICA (14808-60-7)	
pH	5 – 8 (40 %, 20 °C)

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)	
pH	No data available in the literature

Titanium Dioxide (13463-67-7)	
pH	7 (aqueous suspension, 10 %)

Carbon Black, amorphous (1333-86-4)	
pH	< 7 (5 %, 20 °C)

Serious eye damage/irritation : Causes serious eye irritation.

MICROCRYSTALLINE SILICA (14808-60-7)	
pH	5 – 8 (40 %, 20 °C)

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)	
pH	No data available in the literature

Titanium Dioxide (13463-67-7)	
pH	7 (aqueous suspension, 10 %)

Carbon Black, amorphous (1333-86-4)	
pH	< 7 (5 %, 20 °C)

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : May cause cancer.

MICROCRYSTALLINE SILICA (14808-60-7)	
IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens

Titanium Dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans

Carbon Black, amorphous (1333-86-4)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

OXIRANE (2210-79-9)	
NOAEL (oral,rat,90 days)	600 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

MICROCRYSTALLINE SILICA (14808-60-7)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)	
NOAEL (oral,rat,90 days)	≥ 1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: other:

Carbon Black, amorphous (1333-86-4)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.0071 mg/l air Animal: rat, Animal sex: male
NOAEL (oral,rat,90 days)	> 1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation,rat,dust/mist/fume,90 days)	0.0011 mg/l air Animal: rat, Animal sex: male
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

OXIRANE (2210-79-9)	
Viscosity, kinematic	> 4.634 mm²/s

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)	
Viscosity, kinematic	3.43 mm²/s (20 °C, DIN 51562: Capillary viscometer)

bisphenol-A-(epichlorhydrin) epoxy resin (25068-38-6)	
Viscosity, kinematic	Not determined

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] (68609-97-2)	
Viscosity, kinematic	11.165 mm²/s

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

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

OXIRANE (2210-79-9)	
LC50 - Fish [1]	1 – 10 mg/l (Pisces)
EC50 - Crustacea [1]	1 – 10 mg/l (Invertebrata)
EC50 72h - Algae [1]	≈ 5.1 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)	
LC50 - Fish [1]	55 mg/l (EU Method C.1, 96 h, Cyprinus carpio, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 96h - Algae [1]	350 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	250 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
ErC50 algae	350 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

bisphenol-A-(epichlorhydrin) epoxy resin (25068-38-6)	
LC50 - Fish [1]	2.3 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	1.1 – 2.8 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 11 mg/l (EPA 660/3 - 75/009, 72 h, Scenedesmus sp., Static system, Fresh water, Experimental value)

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] (68609-97-2)	
LC50 - Fish [1]	> 5000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, GLP)

Titanium Dioxide (13463-67-7)	
LC50 - Fish [1]	> 100 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Other aquatic organisms [1]	> 100 mg/l Test organisms (species):
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
ErC50 algae	61 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
LOEC (chronic)	5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Carbon Black, amorphous (1333-86-4)	
LC50 - Fish [1]	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Literature study)
EC50 - Crustacea [1]	> 5600 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 24 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	> 10000 mg/l (OECD 201: Alga, Growth Inhibition Test, Scenedesmus subspicatus, Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable

OXIRANE (2210-79-9)	
Persistence and degradability	Biodegradability in soil: no data available, Not readily biodegradable in water.

MICROCRYSTALLINE SILICA (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)	
Persistence and degradability	Not readily biodegradable in water.

bisphenol-A-(epichlorhydrin) epoxy resin (25068-38-6)	
Persistence and degradability	Not readily biodegradable in water.

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] (68609-97-2)	
Persistence and degradability	Readily biodegradable in water.

Titanium Dioxide (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Carbon Black, amorphous (1333-86-4)	
Persistence and degradability	Biodegradability in soil: not applicable, Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

OXIRANE (2210-79-9)	
Partition coefficient n-octanol/water (Log Pow)	2.16 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

MICROCRYSTALLINE SILICA (14808-60-7)	
Bioaccumulative potential	No bioaccumulation data available.

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)	
Partition coefficient n-octanol/water (Log Pow)	0.5 (QSAR, KOWWIN, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

bisphenol-A-(epichlorhydrin) epoxy resin (25068-38-6)	
BCF - Other aquatic organisms [1]	31 (Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	2.64 – 3.78 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] (68609-97-2)	
BCF - Other aquatic organisms [1]	160 – 263 (BCFWIN, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.77 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] (68609-97-2)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Titanium Dioxide (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.

Carbon Black, amorphous (1333-86-4)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

MICROCRYSTALLINE SILICA (14808-60-7)	
Ecology - soil	Low potential for mobility in soil.

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for adsorption in soil.

bisphenol-A-(epichlorhydrin) epoxy resin (25068-38-6)	
Surface tension	58.7 – 58.9 mN/m (20 °C, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.65 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Low potential for adsorption in soil.

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] (68609-97-2)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	> 5.63 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Low potential for mobility in soil.

Titanium Dioxide (13463-67-7)	
Ecology - soil	Low potential for mobility in soil.

Carbon Black, amorphous (1333-86-4)	
Ecology - soil	Adsorbs into the soil. Not toxic to plants. Not toxic to animals.

12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14 Transport information

14.1. UN number

UN-No. (DOT) : Not regulated

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
OXIRANE	2210-79-9	Present	Active	TP
MICROCRYSTALLINE SILICA	14808-60-7	Present	Active	
GLYCIDOXYPROPYLTRIMETHOXYSILANE	2530-83-8	Present	Active	TP
bisphenol-A-(epichlorhydrin) epoxy resin	25068-38-6	Present	Active	XU
OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL]	68609-97-2	Present	Active	TP
Titanium Dioxide	13463-67-7	Present	Active	
Carbon Black, amorphous	1333-86-4	Present	Active	

15.2. International regulations

CANADA

OXIRANE (2210-79-9)

Listed on the Canadian DSL (Domestic Substances List)

MICROCRYSTALLINE SILICA (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

GLYCIDOXYPROPYLTRIMETHOXYSILANE (2530-83-8)

Listed on the Canadian DSL (Domestic Substances List)

bisphenol-A-(epichlorhydrin) epoxy resin (25068-38-6)
Listed on the Canadian DSL (Domestic Substances List)

OXIRANE, MONO[(C12-14-ALKYLOXY)METHYL] (68609-97-2)
Listed on the Canadian DSL (Domestic Substances List)

Titanium Dioxide (13463-67-7)
Listed on the Canadian DSL (Domestic Substances List)

Carbon Black, amorphous (1333-86-4)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

MICROCRYSTALLINE SILICA (14808-60-7)
Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program) Listed on INSQ (Mexican National Inventory of Chemical Substances)

Titanium Dioxide (13463-67-7)
Listed on IARC (International Agency for Research on Cancer) Listed on INSQ (Mexican National Inventory of Chemical Substances)

Carbon Black, amorphous (1333-86-4)
Listed on IARC (International Agency for Research on Cancer) Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

WARNING: This product can expose you to R-902+/ TR 90, 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 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

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Full text of hazard classes and H-statements	
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled

Full text of hazard classes and H-statements	
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure

Safety Data Sheet (SDS), USA

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.