VANTABLACK®

Vantablack 310 Paint SDS-030

Safety Data Sheet

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)
Issue date: 12/1/2026 Version: A

SECTION 1 Identification

1.1. Product identifier

Trade name : Vantablack 310 Paint

1.2. Other means of identification

Other means of identification : Ultra Black Aerospace Coating

1.3. Recommended use of the chemical and restrictions on use

Recommended use : To be applied as spray paint in a well-controlled environment under licence and guidance by the manufacturer

1.4. Supplier's details

Manufacturer
SurreyNanosystems Ltd
East Side Business Park, Beach Road
Newhaven, East Sussex, BN9 0FB
United Kingdom
T 01273 515899
technicalsupport@surreynanosystems.com

Distributor
Ellsworth Adhesives
W129 N10825 Washington Drive
Germantown, WI 53022
USA
T +1 800-888-0698

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 1022366
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

Flammable liquid, Category 2	H225	Highly flammable liquid and vapor.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Reproductive toxicity, Category 2	H361	Suspected of damaging the unborn child.
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336	May cause drowsiness or dizziness.

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) : H225 - Highly flammable liquid and vapor
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H361 - Suspected of damaging the unborn child.

Precautionary statements (GHS US) : Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical, lighting, ventilating equipment.
Avoid breathing mist, spray, vapors.
Wash hands, forearms and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective clothing, eye and face protection, protective gloves.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation or rash occurs: Get medical advice or attention.
Take off contaminated clothing and wash it before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center or doctor if you feel unwell.
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 or attention.
If exposed or concerned: Get medical advice/attention.
In case of fire: Use appropriate media to extinguish.
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
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
Acetone	CAS-No.: 67-64-1	15 – 40	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Ethyl acetate	CAS-No.: 141-78-6	7 – 13	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Trimethoxyvinylsilane	CAS-No.: 2768-02-7	3 – 7	Skin Sens. 1B, H317

Name	Product identifier	%	GHS US classification
n-Butyl acetate	CAS-No.: 123-86-4	2.25 – 5	Flam. Liq. 3, H226 STOT SE 3, H336 Aquatic Acute 3, H402
Toluene	CAS-No.: 108-88-3	0.1 – 0.7	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 3, H412

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

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. If the victim is unconscious: Lay in a stable manner on victim's side. Induce artificial respiration with mask fitted with one-way valve or other suitable device; not mouth-to-mouth. Call a physician immediately.

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 and spit the fluids out. 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 inhalation : Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.

Symptoms/effects after skin contact : May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact : Stinging, redness, itching, tears, blurred vision, swelling.

Symptoms/effects after ingestion : Ingestion may cause nausea and vomiting. Gastrointestinal disturbances.

Chronic symptoms : Suspected of damaging the unborn child.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : IF exposed or concerned: Get medical advice/attention.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam.

Unsuitable extinguishing media : Do not use water.

5.2. Specific hazards arising from the chemical

Fire hazard	:	Highly flammable liquid and vapor.
Explosion hazard	:	Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors.
Hazardous decomposition products in case of fire	:	Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Hydrocarbons.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	:	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Fight fire with normal precautions from a reasonable distance. Do not enter fire area without proper protective equipment, including respiratory protection. Eliminate all ignition sources if safe to do so.
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. Avoid breathing mist, spray, vapors, gas. If possible without taking personal risks, remove ignition sources, ventilate area. No open flames, no sparks, and no smoking. 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 unnecessary personnel. Ventilate spillage area. Stop leak if safe to do so. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. All equipment used when handling the product must be grounded.
Environmental precautions	:	Do not let the product reach soil, drains, sewers, or surface and ground water. Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

For containment	:	Contain with non-combustible inert absorbent.
Methods for cleaning up	:	Small spill: Take up in non-combustible inert absorbent and place into container for disposal. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Use non-sparking tools. 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. This material and its container must be disposed of in a safe way, and as per local legislation.

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 : Use only outdoors or in a well-ventilated area. Ensure good ventilation of the work station. Wear personal protective equipment. Do not breathe mist, spray, vapors, gas. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharge. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use explosion-proof equipment in any process generating vapors, gas air mixtures above the Lower Explosive Limit (refer to Section 9). Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Floors, walls and other surfaces in the hazard area must be cleaned regularly.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Store in a cool, dry and well-ventilated area away from incompatible substances. Keep only in original container. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Keep container closed when not in use. Stored containers should be periodically checked for general condition and leakage.

Incompatible products : Oxidizing agents. Strong bases. Strong acids.

Storage temperature : 0 – 25 °C / 32 - 77 °F

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Acetone (67-64-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Acetone
ACGIH® TLV® TWA	594 mg/m³
	250 ppm
ACGIH® TLV® STEL	1187 mg/m³
	500 ppm
Remark (ACGIH®)	TLV® Basis: URT & eye irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2025
USA - ACGIH - Biological Exposure Indices	
Local name	Acetone
BEI	25 mg/l Parameter: Acetone - Medium: urine - Sampling time: End of shift - Notations: Ns
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Acetone
OSHA PEL TWA	2400 mg/m³
	1000 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Acetone (67-64-1)	
USA - NIOSH - Occupational Exposure Limits	
Local name	Acetone
NIOSH REL 10h TWA	250 ppm
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))
Ethyl acetate (141-78-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethyl acetate
ACGIH® TLV® TWA	1440 mg/m³
	400 ppm
Remark (ACGIH®)	TLV® Basis: URT & eye irr
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Ethyl acetate
OSHA PEL TWA	1400 mg/m³
	400 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - NIOSH - Occupational Exposure Limits	
Local name	Ethyl acetate
NIOSH REL 10h TWA	400 ppm
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))
Toluene (108-88-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Toluene
ACGIH® TLV® TWA	20 ppm
Remark (ACGIH®)	TLV® Basis: CNS, Hearing & Visual impair; Female repro system eff; Pregnancy loss. Notations: OTO (Ototoxicant); A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2025
USA - ACGIH - Biological Exposure Indices	
Local name	Toluene
BEI	0.3 mg/g Kreatinin Parameter: o-Cresol - Medium: urine - Sampling time: End of shift - Notations: B 0.02 mg/l Parameter: Toluene - Medium: blood - Sampling time: Prior to last shift of workweek 0.03 mg/l Parameter: Toluene - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Toluene
OSHA PEL TWA	200 ppm
OSHA PEL C	300 ppm

Toluene (108-88-3)	
Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	500 ppm 10 mins.
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-2
USA - NIOSH - Occupational Exposure Limits	
Local name	Toluene
NIOSH REL 10h TWA	100 ppm
NIOSH REL STEL	150 ppm
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-2 (NIOSH Pocket Guide to Chemical Hazards (NPG))
n-Butyl acetate (123-86-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	n-Butyl acetate
ACGIH® TLV® TWA	238 mg/m³
	50 ppm
ACGIH® TLV® STEL	712 mg/m³
	150 ppm
Remark (ACGIH®)	TLV® Basis: Eye & URT irr
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	n-Butyl-acetate
OSHA PEL TWA	710 mg/m³
	150 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - NIOSH - Occupational Exposure Limits	
Local name	n-Butyl-acetate
NIOSH REL 10h TWA	150 ppm
NIOSH REL STEL	200 ppm
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. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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:
Chemically impervious gloves as described by OSHA's hand protection regulations in 29 CFR 1910.138. Natural rubber. Nitrile rubber
Eye protection:
Chemical goggles or face shield
Skin and body protection:
Wear suitable protective clothing. Antistatic clothing. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
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.

Device	Filter type	Condition
	Filter AX (brown)	vapor 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	:	Black
Odor	:	Sweet
Odor threshold	:	19.8 ppm
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	56 °C / 132.8 °F
Flash point	:	-16 °C / 3.2 °F
Flammability (solid, gas)	:	No data available
Vapor pressure	:	24 kPa @ 20 °C / 68 °F
Relative vapor density at 20°C	:	0.97
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	465 °C / 869 °F
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	≈ 3500 cP
Explosion limits	:	Lower explosion limit: 2.2 vol % Upper explosion limit: 13 vol %
Particle characteristics	:	No data available

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

VOC content : VOC Content: 227.81 g/l 'Specialized function coating' under South Coast Air Quality Management District (SCAQMD) rule 1124 Aerospace Assembly and Component Manufacturing Operations, which has a VOC limit of 890 g/l however, its VOC content of 227.81 g/l also falls within the allowable limits of multiple other SCAQMD coating categories.

SECTION 10 Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

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

High temperatures may produce vapors and/or fumes. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition. Incompatible materials.

10.5. Incompatible materials

Strong acids. Strong bases. Strong reducing agents. Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition generates: Hydrocarbons. 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

Acetone	
LD50 oral rat	5800 mg/kg body weight
LD50 dermal rabbit	> 15800 mg/kg
LC50 Inhalation - Rat	> 20 mg/l/4h
LC50 Inhalation - Rat (Vapors)	76 mg/l

Ethyl acetate	
LD50 oral rat	11.3 ml/kg
LD50 oral	4934 mg/kg body weight
LD50 dermal rabbit	> 20000 mg/kg body weight
LD50 dermal	18000 mg/kg
LC50 Inhalation - Rat	4000 mg/l
LC50 Inhalation - Rat (Vapors)	52.75 mg/l/4h

Toluene	
LD50 oral rat	5580 mg/kg body weight
LD50 dermal rabbit	> 5000 mg/kg body weight
LC50 Inhalation - Rat	12.5 mg/l
n-Butyl acetate	
LD50 oral rat	10800 mg/kg
LD50 oral	10736 mg/kg
LD50 dermal rabbit	> 17600 mg/kg
LD50 dermal	17600 mg/kg
LC50 Inhalation - Rat	21 mg/l
LC50 Inhalation - Rat (Vapors)	1802 mg/l

Skin corrosion/irritation : Not classified

Acetone	
pH	5
Ethyl acetate	
Skin corrosion/irritation, rabbit	Negative, Mildly irritating
n-Butyl acetate	
pH	6.2 (5,3 g/L | 20ºC/68ºF)
Additional information	Not irritating to rabbits on cutaneous application

Serious eye damage/irritation : Causes serious eye irritation.

Acetone	
pH	5
Ethyl acetate	
Serious eye damage/irritation, rabbit	Severely irritating to the eyes
n-Butyl acetate	
pH	6.2 (5,3 g/L | 20ºC/68ºF)
Additional information	Not irritating to rabbits on ocular application

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

Ethyl acetate	
Guinea pig maximization test	Not sensitive

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Toluene	
IARC group	3 - Not classifiable

Reproductive toxicity : Suspected of damaging the unborn child.

Acetone	
LOAEL (animal/female, F0/P)	11298 mg/kg body weight
NOAEL (animal/male, F0/P)	900 mg/kg body weight
Toluene	
LOAEL (animal/female, F0/P)	520 mg/kg body weight

STOT-single exposure : May cause drowsiness or dizziness.

Acetone	
STOT-single exposure	May cause drowsiness or dizziness.
Ethyl acetate	
STOT-single exposure	May cause drowsiness or dizziness.
Toluene	
STOT-single exposure	May cause drowsiness or dizziness.
n-Butyl acetate	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Acetone	
NOAEL (oral,rat,90 days)	900 mg/kg bw/day
Ethyl acetate	
LOAEL (oral,rat,90 days)	3600 mg/kg body weight
NOAEL (oral,rat,90 days)	900 mg/kg body weight
Toluene	
LOAEL (oral,rat,90 days)	1250 mg/kg body weight
NOAEL (oral,rat,90 days)	625 mg/kg body weight
NOAEC (inhalation,rat,vapor,90 days)	2.355 mg/l air
STOT-repeated exposure	May cause damage to organs (central nervous system) through prolonged or repeated exposure (Inhalation).
n-Butyl acetate	
LOAEL (oral,rat,90 days)	500 mg/kg body weight
NOAEL (oral,rat,90 days)	125 mg/kg body weight
Trimethoxyvinylsilane	
NOAEL (oral,rat,90 days)	62.5 mg/kg body weight

Aspiration hazard : Not classified

Symptoms/effects after inhalation : Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.

Symptoms/effects after skin contact : May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact : Stinging, redness, itching, tears, blurred vision, swelling.

Symptoms/effects after ingestion : Ingestion may cause nausea and vomiting. Gastrointestinal disturbances.

Chronic symptoms : Suspected of damaging the unborn child.

SECTION 12 Ecological information

12.1. Ecotoxicity

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

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

Acetone	
LC50 - Fish [1]	8300 mg/l
EC50 - Crustacea [1]	8450 mg/l
ErC50 algae	7200 mg/l
LOEC (chronic)	> 79 mg/l
NOEC (chronic)	≥ 79 mg/l
NOEC chronic crustacea	2212 mg/l
Ethyl acetate	
LC50 - Fish [1]	230 mg/l
EC50 - Crustacea [1]	262 mg/l
NOEC (chronic)	2.4 mg/l
NOEC chronic crustacea	2.4 mg/l
Toluene	
LC50 - Fish [1]	5.5 mg/l
LOEC (chronic)	2.76 mg/l
NOEC chronic fish	1.39 mg/l
NOEC chronic crustacea	0.74 mg/l
n-Butyl acetate	
LC50 - Fish [1]	18 mg/l
EC50 - Crustacea [1]	44 mg/l
EC50 72h - Algae [1]	397 mg/l
EC50 72h - Algae [2]	246 mg/l
LOEC (chronic)	47.6 mg/l
NOEC (chronic)	23.2 mg/l
NOEC chronic algae	296 mg/l
Trimethoxyvinylsilane	
LC50 - Fish [1]	> 92.2 mg/l
EC50 - Crustacea [1]	168.7 mg/l
EC50 72h - Algae [1]	> 957 mg/l
LOEC (chronic)	52.4 mg/l
NOEC (chronic)	28.1 mg/l

12.2. Persistence and degradability

Vantablack 310 Paint	
Persistence and degradability	Not established.
Acetone	
Persistence and degradability	Not rapidly degradable
Ethyl acetate	
Persistence and degradability	Readily biodegradable.
Toluene	
Persistence and degradability	Rapidly degradable
n-Butyl acetate	
Persistence and degradability	Not rapidly degradable
Trimethoxyvinylsilane	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

Acetone	
Partition coefficient n-octanol/water (Log Pow)	-0.24
Ethyl acetate	
Partition coefficient n-octanol/water (Log Pow)	0.73
Bioaccumulative potential	Bioaccumulation unlikely.
n-Butyl acetate	
Partition coefficient n-octanol/water (Log Pow)	1.78

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 : 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 : Flammable vapors may accumulate in the container. Do not re-use empty containers.
Ecological waste information : Avoid release to the environment.

SECTION 14 Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
14.1. UN number		
UN1263	1263	1263
14.2. Proper Shipping Name		
Paint	PAINT	Paint
14.3. Transport hazard class(es)		
3	3	3
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
	Dangerous for the environment: No Marine pollutant: No	
No supplementary information available		

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

UN-No. (DOT) : UN1263

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Packaging Non Bulk (49 CFR 173.xxx) : 173

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

DOT Vessel Stowage Location : B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

IMDG

Special provision (IMDG) : 163, 367

Limited quantities (IMDG) : 5 L

Excepted quantities (IMDG) : E2

Packing instructions (IMDG) : P001

Packing provisions (IMDG) : PP1

IBC packing instructions (IMDG) : IBC02

Tank instructions (IMDG) : T4

Tank special provisions (IMDG) : TP1, TP8, TP28

EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS

EmS-No. (Spillage) : S-E - SPILLAGE SCHEDULE Echo - FLAMMABLE LIQUIDS, FLOATING ON WATER

Stowage category (IMDG) : B

Properties and observations (IMDG) : Miscibility with water depends upon the composition.

IATA

PCA Excepted quantities (IATA) : E2

PCA Limited quantities (IATA) : Y341

PCA limited quantity max net quantity (IATA) : 1L

PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
ERG code (IATA)	:	3L

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.

Acetone (67-64-1)

CERCLA RQ	5000 lb

Ethyl acetate (141-78-6)

CERCLA RQ	5000 lb

Toluene (108-88-3)

Listed on EPA Hazardous Air Pollutant (HAPS)
Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens
Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits

CERCLA RQ	1000 lb

n-Butyl acetate (123-86-4)

CERCLA RQ	5000 lb

15.2. International regulations

CANADA

Acetone (67-64-1)

Listed on the Canadian DSL (Domestic Substances List)

Ethyl acetate (141-78-6)

Listed on the Canadian DSL (Domestic Substances List)

Toluene (108-88-3)

Listed on the Canadian DSL (Domestic Substances List)

n-Butyl acetate (123-86-4)

Listed on the Canadian DSL (Domestic Substances List)

Trimethoxyvinylsilane (2768-02-7)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Acetone (67-64-1)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Ethyl acetate (141-78-6)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Toluene (108-88-3)
Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits

n-Butyl acetate (123-86-4)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

WARNING: This product can expose you to Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Acetone(67-64-1)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Ethyl acetate(141-78-6)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Toluene(108-88-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
n-Butyl acetate (123-86-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

According to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)
Issue date : 12/2/2025

Full text of hazard classes and H-statements	
H225	Highly flammable liquid and vapor

Full text of hazard classes and H-statements	
H226	Flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

Abbreviations and acronyms	
ACGIH	American Conference of Government Industrial Hygienists
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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose

Abbreviations and acronyms	
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organization for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

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.