

Cerakote C-Series

Version number: 8.0

Revision: 03/08/2021

SECTION 1: Identification

1.1 Product identifier

Trade name **Cerakote C-Series**

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

Relevant identified uses **General use**

1.3 Details of the supplier of the safety data sheet

NIC Industries, Inc
 7050 6th St.
 White City Oregon 97503
 United States

Telephone: 866-774-7628
 e-mail: sds@nicindustries.com
 Website: www.nicindustries.com

1.4 Emergency telephone number

Emergency information service **1-800-633-8253 (USA & Canada) or 001-1-801-629-0667 (International)**

The information contained in this Safety Data Sheet (SDS) is, to the best of our knowledge, true and accurate and presented in good faith. NIC Industries, Inc. makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. Because many factors may affect processing or application/use of this product, this data is offered solely for the user's consideration, investigation and verification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or process. Regulatory requirements are subject to change and may differ from one location to another. It is the responsibility of the buyer/user to ensure its activities comply with all local, state and federal regulations.

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.10	Acute toxicity (oral)	4	Acute Tox. 4	H302
A.2	Skin corrosion/irritation	1B	Skin Corr. 1B	H314
A.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.4S	Skin sensitization	1	Skin Sens. 1	H317
A.6	Carcinogenicity	1A	Carc. 1A	H350
B.6	Flammable liquid	3	Flam. Liq. 3	H226

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

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2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word **DANGER**

- Pictograms

GHS02, GHS05, GHS07,
GHS08



- Hazard statements

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H350	May cause cancer.

- Precautionary statements

P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dusts or mists.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P352	If on skin: Wash with plenty of water.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling

Ambient Cure Refractory Resin, Carbon black, p-chlorobenzotrifluoride

2.3 Other hazards

Hazards not otherwise classified

- May be harmful in contact with skin (GHS category 5: acutely toxic - dermal).
- May be harmful if inhaled (GHS category 5: acutely toxic - inhalation).
- Very toxic to aquatic life with long lasting effects (GHS category 1: aquatic toxicity - acute and/or chronic).

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SECTION 3: Composition/information on ingredients**3.1 Substances**

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%
p-chlorobenzotrifluoride	CAS No 98-56-6	50 - < 75
Ceramic Based Pigments and Additives	CAS No Trade Secret	25 - < 50
Ambient Cure Refractory Resin	CAS No Trade Secret	25 - < 50
Performance Ceramic #1	CAS No Trade Secret	10 - < 25
Carbon black	CAS No 1333-86-4	1 - < 5
Rheology Modifiers	CAS No Trade Secret	1 - < 5

** Trade Secret: In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200(i) and in accordance with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), the specific identity and/or exact percentage (concentration) of the composition has been withheld as a "Trade Secret."

SECTION 4: First-aid measures**4.1 Description of first-aid measures**

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Wash contaminated clothing and shoes thoroughly before reuse.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

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4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry extinguishing powder, BC-powder, Carbon dioxide (CO₂)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder.

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

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6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight. Will not sustain combustion.

- Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)										
Country	Name of substance	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
US	Carbon black	PEL (CA)		3.5						Cal/OSHA PEL
US	Carbon black	PEL		3.5						29 CFR 1910.1000
US	Carbon black	REL		3.5 (10 h)					appx-A, appx-C	NIOSH REL
US	Carbon black	TLV®		3					i	ACGIH® 2019
US	Carbon black	REL		0.1 (10 h)					PAHs, appx-A, appx-C	NIOSH REL
US	Performance Ceramic #1	TLV®		10						ACGIH® 2019
US	Performance Ceramic #1	PEL		15					i, dust	29 CFR 1910.1000
US	Performance Ceramic #1	REL							lowest, appx-A	NIOSH REL

Notation

- appx-A NIOSH Potential Occupational Carcinogen (Appendix A)
- appx-C Appendix C - Supplementary Exposure Limits
- Ceiling-C ceiling value is a limit value above which exposure should not occur
- dust as dust
- i inhalable fraction
- lowest exposure by all routes should be carefully controlled to levels as low as possible
- PAHs as polycyclic aromatic hydrocarbons (PAHs)
- STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
- TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection. Use protective eyewear to guard against splash of liquids.

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Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Do not empty into drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Liquid
Color	Various
Odor	Ammoniacal

Other safety parameters

pH (value)	Not determined
Melting point/freezing point	Not determined
Initial boiling point and boiling range	>133.8 °C at 1 atm
Flash point	42.8 °C
Evaporation rate	Not determined
Flammability (solid, gas)	Not relevant (fluid)
Vapor pressure	0.018 Pa at 25 °C
Density	Not determined
Vapor density	Not available
Relative density	Not available
Solubility(ies)	Not determined

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Partition coefficient

- n-octanol/water (log KOW)	Not available
Auto-ignition temperature	600 °C (auto-ignition temperature (liquids and gases))
Viscosity	Not determined
Explosive properties	None
Oxidizing properties	None

9.2 Other information

Temperature class (USA, acc. to NEC 500)	T1 (maximum permissible surface temperature on the equipment: 450°C)
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SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Moisture.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

10.5 Incompatible materials

Oxidizers. Strong acids. Alkalines.

10.6 Hazardous decomposition products

Chlorine-containing gases, fluorine-containing gases may be produced in products containing p-chlorobenzotrifluoride. Carbon dioxide, carbon monoxide, and silicon oxides may be produced from all coating formulations. Hazardous combustion products: see section 5.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Harmful if swallowed.

GHS of the United Nations, annex 4: May be harmful in contact with skin or if inhaled.

- Acute toxicity estimate (ATE)

Oral 750 mg/kg

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Ambient Cure Refractory Resin	Trade Secret	Oral	300 mg/kg
Ceramic Based Pigments and Additives	Trade Secret	Inhalation: vapor	11 mg/l/4h
Ceramic Based Pigments and Additives	Trade Secret	Inhalation: dust/mist	2.3 mg/l/4h

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	Classification	Number
Performance Ceramic #1	2B	
Carbon black	2B	
p-chlorobenzotrifluoride	2B	

Legend

2B Possibly carcinogenic to humans

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National Toxicology Program (United States): Report on Carcinogens

Name of substance	CAS No	Classification	Number
Carbon black	1333-86-4	Known to be human carcinogens	1st Report on Carcinogens

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
p-chlorobenzotrifluoride	98-56-6	LC50	6.5 mg/l	Fish	24 h
p-chlorobenzotrifluoride	98-56-6	ErC50	>0.41 mg/l	Algae	72 h
p-chlorobenzotrifluoride	98-56-6	EC50	>0.41 mg/l	Algae	72 h
Ambient Cure Refractory Resin	Trade Secret	LC50	57.1 mg/l	Zebra fish	96 h
Carbon black	1333-86-4	LC50	>1,000 mg/l	Fish	96 h
Carbon black	1333-86-4	EC50	>5,600 mg/l	Aquatic invertebrates	24 h
Carbon black	1333-86-4	ErC50	>10,000 mg/l	Algae	72 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
p-chlorobenzotrifluoride	98-56-6	EC50	242.1 mg/l	Microorganisms	30 min
Ceramic Based Pigments and Additives	Trade Secret	EC50	300.4 mg/l	Microorganisms	3 h
Carbon black	1333-86-4	EC50	>1,000 mg/l	Microorganisms	3 h

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12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number

DOT	UN 1263
IMDG-Code	UN 1263
ICAO-TI	UN 1263

14.2 UN proper shipping name

DOT	Paint related material
IMDG-Code	PAINT RELATED MATERIAL
ICAO-TI	Paint related material

14.3 Transport hazard class(es)

DOT	3
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IMDG-Code	3
ICAO-TI	3
14.4 Packing group	
DOT	III
IMDG-Code	III
ICAO-TI	III
14.5 Environmental hazards	hazardous to the aquatic environment
Environmentally hazardous substance (aquatic environment)	p-chlorobenzotrifluoride
14.6 Special precautions for user	
There is no additional information.	
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	
The cargo is not intended to be carried in bulk.	

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN1263, Paint related material, 3, III, environmentally hazardous
Danger label(s)	3, fish and tree
 	
Environmental hazards	YES (hazardous to the aquatic environment)
Special provisions (SP)	367, B1, B52, B131, IB3, T2, TP1, TP29
ERG No	128

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	YES (hazardous to the aquatic environment) (p-chlorobenzotrifluoride)
Danger label(s)	3, fish and tree
 	
Special provisions (SP)	163, 223, 367, 955
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-E, <u>S-E</u>
Stowage category	A

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International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards YES (hazardous to the aquatic environment)
Danger label(s) 3



Special provisions (SP) A3, A72, A192
Excepted quantities (EQ) E1
Limited quantities (LQ) 10 L

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

none of the ingredients are listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

none of the ingredients are listed

Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List

- Toxic or Hazardous Substance List (MA-TURA)

none of the ingredients are listed

- Hazardous Substances List (MN-ERTK)

Name of substance	References	Remarks
Performance Ceramic #1	A	
Carbon black	A, N, O, R, *	

Legend

- * Substances which are regulated by OSHA as carcinogens; have been categorized by the ACGIH as either "human carcinogens" or "suspect of carcinogenic potential for man"; have been evaluated by the International Agency for Research on Cancer (IARC) and found to be carcinogens or potential carcinogens; or have been listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP).
- A American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
- N National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards," August 1988, available from NIOSH, Publications Dissemination Office, Division of Standards Development and Technology Transfer
- O Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division

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Legend

R International Agency for Research on Cancer (IARC) Monographs on the Evaluation of the Carcinogenic Risks to Humans; Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42, Supplement 7 (1987). Available from: WHO Publications Centre USA

- Hazardous Substance List (NJ-RTK)

Name of substance	Remarks	Classifications
Performance Ceramic #1		
Carbon black		CA

Legend

CA Carcinogenic

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name of substance	Classification
Performance Ceramic #1	
Carbon black	

- Hazardous Substance List (RI-RTK)

Name of substance	References
Performance Ceramic #1	T
Carbon black	T

Legend

T Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals		
Name of substance	Remarks	Type of the toxicity
Performance Ceramic #1	airborne, unbound particles of respirable size	cancer
Carbon black	airborne, unbound particles of respirable size	cancer
p-chlorobenzotrifluoride		cancer

Industry or sector specific available guidance(s)

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

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Category	Degree of hazard	Description
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard	W	material that can react with water with some release of energy, but not violently

National inventories

Country	Inventory	Status
AU	AICS	Not all ingredients are listed
CA	DSL	Not all ingredients are listed
CA	NDSL	Not all ingredients are listed
CN	IECSC	Not all ingredients are listed
EU	ECSI	Not all ingredients are listed
EU	REACH Reg.	Not all ingredients are listed
JP	CSCL-ENCS	Not all ingredients are listed
JP	ISHA-ENCS	Not all ingredients are listed
KR	KECI	Not all ingredients are listed
MX	INSQ	Not all ingredients are listed
NZ	NZIoC	Not all ingredients are listed
PH	PICCS	Not all ingredients are listed
TR	CICR	Not all ingredients are listed
TW	TCSI	Not all ingredients are listed
US	TSCA	Not all ingredients are listed

Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NDSL	Non-domestic Substances List (NDSL)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

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15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2019	From ACGIH®, 2019 TLVs® and BEIs® Book. Copyright 2019. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")

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Abbr.	Descriptions of used abbreviations
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
ppm	Parts per million
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
STEL	Short-term exposure limit
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H350	May cause cancer.