

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : VC-20

SDS-Identcode : 130000001241

Manufacturer or supplier's details

Company : Chemours International Operations Sàrl

Address : 150, Route du Nant d'Avril
CH-1217 Meyrin, Geneva Switzerland

Telephone : +41 (0) 22 719 15 00

Emergency telephone number : +(44)-870-8200418 (CHEMTREC - Recommended)

E-mail address : sds-support@chemours.com

Telefax : +41 (0) 22 723 21 87

Recommended use of the chemical and restrictions on use

Recommended use : Processing aid
Curing chemical

Restrictions on use : For industrial use only.
Do not use or resell Chemours™ materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless agreed to by Seller in a written agreement covering such use. For further information, please contact your Chemours representative.

2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 3

Acute toxicity (Inhalation) : Category 2

Serious eye damage : Category 1

Specific target organ toxicity - single exposure : Category 3

Specific target organ toxicity - repeated exposure : Category 1 (Lungs, nasal cavity)

Short-term (acute) aquatic hazard : Category 1

SAFETY DATA SHEET



VC-20

Version 1.0 Revision Date: 12.11.2024 SDS Number: 11460875-00001 Date of last issue: -
Date of first issue: 12.11.2024

Long-term (chronic) aquatic hazard : Category 1

GHS-Labeling

Hazard pictograms :



Signal word : Danger

Hazard statements : H301 Toxic if swallowed.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H372 Causes damage to organs (Lungs, nasal cavity) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
Response:
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P391 Collect spillage.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Components

Chemical name	CAS-No.	Classification	MAC value mg/m ³ / TSEL value	Concentration (% w/w)
Benzyltriphenylphosphonium chloride	1100-88-5	Acute Tox.2; H300 Acute Tox.2; H330 Eye Dam.1; H318	No data available	>= 30 - < 50

SAFETY DATA SHEET



VC-20

Version 1.0	Revision Date: 12.11.2024	SDS Number: 11460875-00001	Date of last issue: - Date of first issue: 12.11.2024
----------------	------------------------------	-------------------------------	--

		STOT SE3; H335 STOT RE1; H372 (Lungs, nasal cavity) Aquatic Acute1; H400 Aquatic Chronic1; H410		
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For explanation of abbreviations see section 16.

4. FIRST AID MEASURES

- | | |
|---|---|
| General advice | : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice. |
| If inhaled | : If inhaled, remove to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Get medical attention immediately. |
| In case of skin contact | : In case of contact, immediately flush skin with soap and plenty of water.
Get medical attention if symptoms occur. |
| In case of eye contact | : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Get medical attention immediately. |
| If swallowed | : If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.
Call a physician or poison control centre immediately.
Rinse mouth thoroughly with water.
Never give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | : Toxic if swallowed.
Causes serious eye damage.
Fatal if inhaled.
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure. |
| Protection of first-aiders | : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8). |
| Notes to physician | : Treat symptomatically and supportively. |

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

5. FIREFIGHTING MEASURES

Flammable properties

Flash point : Not applicable

Ignition temperature : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flammability (solid, gas) : No data available

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides
Fluorine compounds
Oxides of phosphorus
Chlorine compounds
Metal oxides

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Only trained personnel should re-enter the area.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Surround spill with absorbents and place a damp covering over the area to minimise entry of the material into the air.
Add excess liquid to allow the material to enter into solution.
Soak up with inert absorbent material.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

7. HANDLING AND STORAGE

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Do not breathe dust, fume, gas, mist, vapours or spray.
Do not swallow.
Do not get in eyes.
Avoid prolonged or repeated contact with skin.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment.
Keep container tightly closed.
Already sensitised individuals, and those susceptible to asthma, allergies, chronic or recurrent respiratory disease, should consult their physician regarding working with respiratory irritants or sensitisers.
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.
See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Conditions for safe storage : Keep in properly labelled containers.
Store locked up.
Keep tightly closed.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

Materials to avoid : Do not store with the following product types:
Self-reactive substances and mixtures
Organic peroxides
Flammable liquids
Flammable solids
Pyrophoric liquids
Pyrophoric solids
Self-heating substances and mixtures
Substances and mixtures, which in contact with water, emit flammable gases
Explosives
Gases

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Minimize workplace exposure concentrations.
If sufficient ventilation is unavailable, use with local exhaust ventilation.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Particulates type

Hand protection

Material : Nitrile rubber
Glove thickness : 0,38 mm
Wearing time : 480 min

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday. Breakthrough time is not determined for the product. Change gloves often!

Eye protection : Wear the following personal protective equipment:
Chemical resistant goggles must be worn.
If splashes are likely to occur, wear:
Face-shield

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure

SAFETY DATA SHEET



VC-20

Version 1.0	Revision Date: 12.11.2024	SDS Number: 11460875-00001	Date of last issue: - Date of first issue: 12.11.2024
----------------	------------------------------	-------------------------------	--

potential.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: pellets
Colour	: white, opaque
Odour	: slight
Odour Threshold	: No data available
pH	: 5,5
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Relative density	: 1,5
Solubility(ies) Water solubility	: slightly soluble
Partition coefficient: n-	: Not applicable

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

octanol/water

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Particle characteristics
Particle size : No data available

10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : None known.

Conditions to avoid : None known.

Incompatible materials : None.

Hazardous decomposition products : No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Skin contact
Ingestion
Eye contact

Acute toxicity

Toxic if swallowed.

Fatal if inhaled.

Product:

Acute oral toxicity : Acute toxicity estimate: 131,06 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 0,1524 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

Components:

Benzyltriphenylphosphonium chloride:

Acute oral toxicity : LD50 (Rat, male): 43 mg/kg

Acute inhalation toxicity : LC50 (Rat, male): > 0,08 - 0,2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Skin corrosion/irritation

Not classified based on available information.

Components:

Benzyltriphenylphosphonium chloride:

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

Benzyltriphenylphosphonium chloride:

Species : Rabbit
Result : Irreversible effects on the eye

Result : Toxic by eye contact.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

Benzyltriphenylphosphonium chloride:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

Germ cell mutagenicity

Not classified based on available information.

Components:

Benzyltriphenylphosphonium chloride:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause respiratory irritation.

Components:

Benzyltriphenylphosphonium chloride:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Causes damage to organs (Lungs, nasal cavity) through prolonged or repeated exposure.

Components:

Benzyltriphenylphosphonium chloride:

Exposure routes : Inhalation
Target Organs : Lungs, nasal cavity
Assessment : Shown to produce significant health effects in animals at concentrations of 0.02 mg/l/6h/d or less.

Repeated dose toxicity

Components:

Benzyltriphenylphosphonium chloride:

Species : Rat, male
NOAEL : 0,0051 mg/l
LOAEL : 0,015 mg/l
Application Route : inhalation (dust/mist/fume)
Exposure time : 2 Weeks

Aspiration toxicity

Not classified based on available information.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Benzyltriphenylphosphonium chloride:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,59 mg/l
Exposure time: 72 h

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

Method: OECD Test Guideline 201

EC10 (Pseudokirchneriella subcapitata (green algae)): 0,25 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

M-Factor (Chronic aquatic toxicity) : 1

Persistence and degradability

Components:

Benzyltriphenylphosphonium chloride:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 1 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Bioaccumulative potential

Components:

Benzyltriphenylphosphonium chloride:

Partition coefficient: n-octanol/water : log Pow: -0,7
Method: OECD Test Guideline 107

Mobility in soil

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not dispose of waste into sewer.

Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

UN number : UN 3464
Proper shipping name : ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S.
(Benzyltriphenylphosphonium chloride)
Class : 6.1
Packing group : III
Labels : 6.1
Hazard Identification Number : 60
Tunnel restriction code : (E)
Environmentally hazardous : yes

IATA-DGR

UN/ID No. : UN 3464
Proper shipping name : Organophosphorus compound, solid, toxic, n.o.s.
(Benzyltriphenylphosphonium chloride)
Class : 6.1
Packing group : III
Labels : Toxic
Packing instruction (cargo aircraft) : 677
Packing instruction (passenger aircraft) : 670

IMDG-Code

UN number : UN 3464
Proper shipping name : ORGANOPHOSPHORUS COMPOUND, SOLID, TOXIC, N.O.S.
(Benzyltriphenylphosphonium chloride)
Class : 6.1
Packing group : III
Labels : 6.1
EmS Code : F-A, S-A
Marine pollutant : yes

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

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

16. OTHER INFORMATION

Other information : Chemours™ and the Chemours Logo are trademarks of The Chemours Company.
Before use read Chemours safety information., For further information contact the local Chemours office or nominated distributors.

SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of H-Statements

H300	Fatal if swallowed.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Eye Dam.	: Serious eye damage
STOT RE	: Specific target organ toxicity - repeated exposure
STOT SE	: Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to compile the Safety Data	: Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-
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SAFETY DATA SHEET



VC-20

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	12.11.2024	11460875-00001	Date of first issue: 12.11.2024

Sheet cy, <http://echa.europa.eu/>

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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