

Printing date 03/11/2015

Reviewed on 03/11/2015

1 Identification

- **Product identifier**
- **Trade name: Viva Duox**
- **Application of the substance / the mixture**
Laundry
Bleaching agent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SEITZ GmbH
Gutenbergstrasse 3
65830 Kriftel / Germany
Tel. + 49(0) 6192-9948-0
Fax + 49(0) 6192-9948-99
msds@seitz24.com
www.seitz24.com
- **Information department:**
CHEM-TEL Inc.
1305 North Florida Ave
Tampa Florida 33602
- **Emergency telephone number: 1-800-255-3924**

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Org. Perox. EF H242 Heating may cause a fire.



GHS05 Corrosion

Met. Corr.1 H290 May be corrosive to metals.

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02

GHS05

GHS07

- **Signal word** Danger

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- **Hazard-determining components of labeling:**

hydrogen peroxide
peracetic acid
acetic acid

- **Hazard statements**

H242 Heating may cause a fire.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

- **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P234 Keep only in original container.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352 If on skin: Wash with plenty of soap and water.
P308+P311 IF exposed or concerned: Call a poison center/doctor.

- **Hazard description:**

- **WHMIS classification**

C - Oxidizing materials
D2B - Toxic material causing other toxic effects
E - Corrosive material



- **Classification system**

- **NFPA ratings (scale 0-4)**



Health = 3
Fire = 3
Reactivity = 0

The substance possesses oxidizing properties.

- **HMIS-ratings (scale 0-4)**



Health = 4
Fire = 3
Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **CAS-No. Components:**

CAS-No.	Components:	
7722-84-1	hydrogen peroxide	34 - 41%
79-21-0	peracetic acid	9 - 11%

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64-19-7 acetic acid

6 - 7%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information**
Remove casualties from exposure.
Keep unprotected persons away.
Immediately remove any clothing soiled by the product.
- **After inhalation**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact**
Immediately rinse with water.
Seek medical treatment.
- **After eye contact**
Rinse opened eye for several minutes under running water.
Call a doctor immediately.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Information for doctor**
In case of ingestion and subsequent vomiting aspiration by the lungs might result and lead to chemical pneumonia or suffocation.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
Water spray
Foam
Fire-extinguishing powder
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents** Organic compounds
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Oxygen (O₂)
Product is fire encouraging.
- **Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Avoid contact with eyes and skin.

Do not breathe gases/ vapours.

Keep away from ignition sources

- **Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

- **Methods and material for containment and cleaning up:**

Dilute with plenty water.

Absorb with liquid-binding material (sand, diatomite)

Dispose of the collected material according to regulations.

- **Reference to other sections**

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling**

Keep away from heat and direct sunlight.

Avoid contact with eyes and skin.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- **Information about protection against explosions and fires:**

Protect from heat.

Keep ignition sources away - Do not smoke.

Substance/ product is oxidizing.

- **Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Use only receptacles specifically permitted for this substance/product.

Suitable material: stainless steel 1.4571 (V4A), plastics, glass, ceramic

Provide acid-resistant floor.

Provide ventilation for receptacles.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from flammable substances, reducing agents, alkalis and metal salts.

- **Further information about storage conditions:**

Protect from heat and direct sunlight.

Store receptacle in a well ventilated area.

Do not gas tight seal receptacle.

Store in a cool place.

Time of storage: max. 24 month

- **Specific end use(s)** Laundry

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

7722-84-1 hydrogen peroxide

PEL (USA)	Long-term value: 1.4 mg/m ³ , 1 ppm
REL (USA)	Long-term value: 1.4 mg/m ³ , 1 ppm
TLV (USA)	Long-term value: 1.4 mg/m ³ , 1 ppm
EL (Canada)	Long-term value: 1 ppm
EV (Canada)	Long-term value: 1.4 mg/m ³ , 1 ppm

79-21-0 peracetic acid

TLV (USA)	Short-term value: 1.24* mg/m ³ , 0.4* ppm *inhalable fraction + vapor
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64-19-7 acetic acid

PEL (USA)	Long-term value: 25 mg/m ³ , 10 ppm
REL (USA)	Short-term value: 37 mg/m ³ , 15 ppm Long-term value: 25 mg/m ³ , 10 ppm
TLV (USA)	Short-term value: 37 mg/m ³ , 15 ppm Long-term value: 25 mg/m ³ , 10 ppm
EL (Canada)	Short-term value: 15 ppm Long-term value: 10 ppm
EV (Canada)	Short-term value: 37 mg/m ³ , 15 ppm Long-term value: 25 mg/m ³ , 10 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Do not eat, drink, smoke or sniff while working.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

- **Breathing equipment:**

Ensure good ventilation/exhaustion at the workplace.

Use suitable respiratory protective device in case of insufficient ventilation (exceeding the workplace limit values, formation of aerosols).

- **Protection of hands:**

Acid resistant gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**

Chloroprene rubber, CR

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**

Gauze goggles

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- Tightly sealed goggles.
- **Body protection:** Acid resistant protective clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Fluid
Color:	Colorless
· Odor:	Pungent
· Odour threshold:	Not determined.

- pH-value at 20 °C (68 °F): - 0.5

- **Change in condition**

Melting point/Melting range:	~ - 50 °C
Boiling point/Boiling range:	not applicable

- **Flash point:** 96 °C (205 °F) (DIN 51 584)

- **Flammability (solid, gaseous)** No further relevant information available.

- **Ignition temperature:** 265 °C (509 °F) (DIN 51 794)

- **Decomposition temperature:** ≥ 60 °C (≥ 140 °F)

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** No further relevant information available.

- **Explosion limits:**

Lower:	No further relevant information available.
Upper:	No further relevant information available.

- **Oxidizing properties** oxidising

- **Vapor pressure at 20 °C (68 °F):** ~ 25 hPa (~ 19 mm Hg)

- **Density at 20 °C (68 °F):** ~ 1.15 g/cm³

- **Relative density** No further relevant information available.

- **Vapour density** No further relevant information available.

- **Evaporation rate** No further relevant information available.

- **Solubility in / Miscibility with**

- **Water:** Fully miscible

- **Partition coefficient (n-octanol/water):** - 0.52 log POW (peracetic acid)

- **Viscosity:**

dynamic:	No further relevant information available.
kinematic:	No further relevant information available.

- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No decomposition if used and stored according to specifications.

- **Chemical stability**

- Stable under normal ambient conditions.

- Danger of decomposition in case of warmth and heat influence.

- **Possibility of hazardous reactions**

- Reaction (decomposition) with metal ions, -salts and metals

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- Flammable
- Danger of bursting
- **Conditions to avoid** Protect from heat and direct sunlight.
- **Incompatible materials:**
 - Metal ions, metal salts, metals
 - alkalis, reducing agents
 - flammable substances
- **Hazardous decomposition products:**
 - Steam and oxygen
 - Ethanoic acid
- **Additional information:** Product is stabilized.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

Oral	LD50	1015 mg/kg (rat) (OECD TG 401; peracetic acid 15%)
Dermal	LD50	1912 mg/kg (rabbit) (US-EPA-Method, peracetic acid 12%)
Inhalative	LC50	> 0.5 mg/l (rat) (4 h; vapor; peracetic acid 36%; OECD TG 403)

- **Primary irritant effect:**
 - **on the skin:** Caustic effect on skin and mucous membranes.
 - **on the eye:** Strong caustic effect with danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7722-84-1	hydrogen peroxide	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Other information:** The product is easily biodegradable.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **According to the formulation contains the following heavy metals and compounds from the EU guideline NO. 2006/11/EC:**

According to the latest stage of our technical knowledge the product does not contain any heavy metals nor compounds acc. to EG-standard 76/464 EWG.
 - **General notes:**
 - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 - Avoid transfer into the environment.
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.

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- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Contaminated adsorbent, soil, water must be disposed of in a permitted hazardous waste management facility. Recovered products may be reused, reprocessed or incinerated or must be treated in a permitted hazardous waste management facility. It is your duty to dispose of the chemical materials and/or their containers in accordance with the Clean Air Act, The Clean Water Act, RCRA, as well as applicable Federal, State, and local Regulations regarding disposal.

14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN3109
- **UN proper shipping name**
- **DOT** Organic peroxide type F, liquid (PEROXYACETIC ACID, TYPE F , stabilized)
- **ADR** 3109 Organic peroxide type F, liquid (PEROXYACETIC ACID, TYPE F , stabilized), ENVIRONMENTALLY HAZARDOUS
- **IMDG** ORGANIC PEROXIDE TYPE F, LIQUID (PEROXYACETIC ACID, TYPE F , stabilized), MARINE POLLUTANT
- **IATA** ORGANIC PEROXIDE TYPE F, LIQUID (PEROXYACETIC ACID, TYPE F , stabilized)

- **Transport hazard class(es)**

- **DOT**



- **Class** 5.2 Organic peroxides
- **Label** 5.2+8

- **ADR**



- **Class** 5.2 (P1) Organic peroxides
- **Label** 5.2+8

- **IMDG**



- **Class** 5.2 Organic peroxides


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· Label	5.2+8
· IATA	
	
· Class	5.2 Organic peroxides
· Label	5.2+8
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Organic peroxides
· Danger code (Kemler):	539
· EMS Number:	F-J,S-R
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	125 ml
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN3109, Organic peroxide type F, liquid (PEROXYACETIC ACID, TYPE F, stabilized), ENVIRONMENTALLY HAZARDOUS, 5.2 (8)

15 Regulatory information

· Canadian substance lists

· Canadian domestic substance list (DSL):

All ingredients are listed.

· Canadian ingredient disclosure list (limit 0.1%):

None of the ingredients is listed.

· Canadian ingredient disclosure list (limit 1%):

7722-84-1 hydrogen peroxide

79-21-0 peracetic acid

64-19-7 acetic acid

· Sara

· Section 355 (extremely hazardous substances):

7722-84-1 hydrogen peroxide

79-21-0 peracetic acid

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<ul style="list-style-type: none"> · Section 313 (specific toxic chemical listings):
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79-21-0 peracetic acid

<ul style="list-style-type: none"> · TSCA (Toxic Substances Control Act):

All ingredients are listed.

<ul style="list-style-type: none"> · Proposition 65

<ul style="list-style-type: none"> · Chemicals known to cause cancer:

None of the ingredients is listed.

<ul style="list-style-type: none"> · Chemicals known to cause reproductive toxicity for females:
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None of the ingredients is listed.

<ul style="list-style-type: none"> · Chemicals known to cause reproductive toxicity for males:
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None of the ingredients is listed.

<ul style="list-style-type: none"> · Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

<ul style="list-style-type: none"> · Carcinogeny categories

<ul style="list-style-type: none"> · EPA (Environmental Protection Agency)
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None of the ingredients is listed.

<ul style="list-style-type: none"> · TLV (Threshold Limit Value established by ACGIH)

7722-84-1 hydrogen peroxide	A3
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<ul style="list-style-type: none"> · MAK (German Maximum Workplace Concentration)

7722-84-1 hydrogen peroxide	4
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79-21-0 peracetic acid	3B
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<ul style="list-style-type: none"> · NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

<ul style="list-style-type: none"> · National regulations

<ul style="list-style-type: none"> · Other regulations, limitations and prohibitive regulations

<ul style="list-style-type: none"> · Please note:

The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyers responsibility to ensure that its activities comply with Federal, State or provincial, and local laws. The following specific information is made for the purpose of complying with numerous laws and regulations.

<ul style="list-style-type: none"> · Other information: The product has been designed for professional use only.
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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

<ul style="list-style-type: none"> · Date of preparation / last revision 03/11/2015 / 1

<ul style="list-style-type: none"> · Abbreviations and acronyms:
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ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

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- LD50: Lethal dose, 50 percent
 - Org. Perox. EF: Organic Peroxides, Types E, F
 - Met. Corr.1: Corrosive to metals, Hazard Category 1
 - Acute Tox. 4: Acute toxicity, Hazard Category 4
 - Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
 - Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
- * **Data compared to the previous version altered.**

USA