

Safety Data Sheet

according to the Preparation of Safety data Sheets for
Hazardous Chemicals Code of Practice

VITA YZ LIQUIDS

Revision date: 05.02.2020

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

VITA YZ LIQUIDS

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

Use of the substance/mixture

Dye (Liquid)

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name: Zirkonzahn srl
Street: Via An der Ahr 7
Place: I-39030 Gais

Supplier

Company name: VITA Zahnfabrik H.Rauter GmbH & Co.KG
Post-office box: 1338
79704 Bad Säckingen

Telephone: +49(0)7761-562-0
e-mail: info@vita-zahnfabrik.com
Internet: www.vita-zahnfabrik.com

Telefax: +49(0)7761-562-299

1.4. Emergency telephone number:

+49-(0)761-19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

UN-GHS (Rev.3)

Hazard categories:

Skin corrosion/irritation: Skin Corr. 1

Serious eye damage/eye irritation: Eye Dam. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause respiratory irritation.

2.2. Label elements

UN-GHS (Rev.3)

Hazard components for labelling

Erbium trinitrate hydrate

Neodymium trinitrate hexahydrate

Iron(III) nitrate nonahydrate

Signal word: Danger

Pictograms:



Hazard statements

H314

Causes severe skin burns and eye damage.

H335

May cause respiratory irritation.

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Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P363	Wash contaminated clothing before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER/doctor.
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.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of waste according to applicable legislation.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity
100641-14-3	Erbium trinitrate hydrate	30 - 60 %
16454-60-7	Neodymium trinitrate hexahydrate	10 - 30 %
7782-61-8	Iron(III) nitrate nonahydrate	10 - 30 %

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air. If experiencing respiratory symptoms: Call a doctor.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Extinguishing powder, Foam, Carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

Non-flammable. In case of fire may be liberated: Gases/vapours, toxic.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid dust formation. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Remove persons to safety.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal. Dispose of waste according to applicable legislation.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid dust formation. Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Usual measures for fire prevention.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep/Store only in original container. Keep locked up.

Hints on joint storage

Do not store together with: Food and feedingstuffs.

Keep away from: Alkali (lye), concentrated.

7.3. Specific end use(s)

Dye (Liquid)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Additional advice on limit values

Value:

Iron salts, soluble (as Fe):

1 mg/m³ TWA

Source: Workplace exposure standards for airborne contaminants , Publication date: 16 December 2019

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion at critical locations.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary . When using do not eat, drink, smoke, sniff. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Wear suitable gloves.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Skin protection

Use of protective clothing. Material, acid-resistant.

Respiratory protection

Usually no personal respirative protection necessary.

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Do not allow to enter into surface water or drains. Avoid release to the environment.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	various
Odour:	odourless
pH-Value:	1,4 - 4,8

Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not determined

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

The product is not: Explosive.

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Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	not determined
Auto-ignition temperature	
Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined
Oxidizing properties	
Not oxidising.	
Vapour pressure:	not determined
Density:	not determined
Water solubility:	not determined
Solubility in other solvents	
not determined	
Partition coefficient:	not determined
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Vapour density:	not determined
Evaporation rate:	not determined

9.2. Other information

Odour threshold: not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Keep away from: Alkali (lye), concentrated.

10.6. Hazardous decomposition products

In case of fire may be liberated: Gases/vapours, toxic.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Based on available data, the classification criteria are not met.

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

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Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (Erbium trinitrate hydrate; Neodymium trinitrate hexahydrate)

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Damaging effect on aquatic ecosystems possible due to change in the pH value.

12.2. Persistence and degradability

not applicable (Product/Substance is inorganic.)

12.3. Bioaccumulative potential

not applicable (Product/Substance is inorganic.)

12.4. Mobility in soil

soil / Damaging effect on aquatic ecosystems possible due to change in the pH value.

12.5. Other adverse effects

Global warming potential (GWP): none

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself. Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADG)

14.1. UN number:	UN 2801
14.2. UN proper shipping name:	DYE, LIQUID, CORROSIVE, N.O.S. (Erbium trinitrate hydrate, Neodymium trinitrate hexahydrate, Iron(III) nitrate nonahydrate)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2

Other applicable information (land transport)

HAZCHEM: 2X

Marine transport (IMDG)

14.1. UN number:	UN 2801
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14.2. UN proper shipping name: DYE, LIQUID, CORROSIVE, N.O.S. (Erbium trinitrate hydrate, Neodymium trinitrate hexahydrate, Iron(III) nitrate nonahydrate)

14.3. Transport hazard class(es): 8

14.4. Packing group: II

Hazard label: 8



Special Provisions: 274

Limited quantity: 1 L

Excepted quantity: E2

EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)


14.1. UN number: UN 2801

14.2. UN proper shipping name: DYE, LIQUID, CORROSIVE, N.O.S. (Erbium trinitrate hydrate, Neodymium trinitrate hexahydrate, Iron(III) nitrate nonahydrate)

14.3. Transport hazard class(es): 8

14.4. Packing group: II

Hazard label: 8



Special Provisions: A3 A803

Limited quantity Passenger: 0.5 L

Passenger LQ: Y840

Excepted quantity: E2

IATA-packing instructions - Passenger:	851
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	855
IATA-max. quantity - Cargo:	30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: strongly corrosive.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

National regulatory information

Additional information

SUSPM

Erbium trinitrate hydrate: No

Neodymium trinitrate hexahydrate: No

Iron(III) nitrate nonahydrate: Yes.

SUSPM

Erbium trinitrate hydrate: No

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Neodymium trinitrate hexahydrate: No
Iron(III) nitrate nonahydrate: No

SECTION 16: Other information**Abbreviations and acronyms**

ACGIH: American Conference of Governmental Industrial Hygienists
ADG: Australian Dangerous Goods
AICS: Australian Inventory of Chemical Substances
ICAO: International Civil Aviation Organization
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service
STEL: Short-term exposure limit
TWA: time-weighted average
TI: Technical Instructions
DGR: Dangerous Goods Regulations
UN: United Nations
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)