

Safety Data Sheet

according to 29 CFR 1910.1200(g)

VITAVM LC SEPARATOR

Revision date:

Product code: 152

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1. Identification**Product identifier**

VITAVM LC SEPARATOR

Recommended use of the chemical and restrictions on use**Use of the substance/mixture**

Use as laboratory reagent

Details of the supplier of the safety data sheet

Company name:	VITA Zahnfabrik H.Rauter GmbH & Co.KG	
Street:	Spitalgasse 3	
Place:	D-79713 Bad Säckingen	
Post-office box:	1338	
	D-79704 Bad Säckingen	
Telephone:	+49(0)7761-562-0	Telefax: +49(0)7761-562-299
e-mail:	info@vita-zahnfabrik.com	
Contact person:	regulatory affairs	
e-mail:	info@vita-zahnfabrik.com	
Internet:	www.vita-zahnfabrik.com	
Responsible Department:	Regulatory Affairs	
Emergency phone number:	+49-(0)761-19240	

2. Hazard(s) identification**Classification of the chemical****29 CFR Part 1910.1200**

Flammable liquids: Flam. Liq. 2
 Aspiration hazard: Asp. Tox. 1
 Skin corrosion/irritation: Skin Irrit. 2
 Serious eye damage/eye irritation: Eye Dam. 1
 Reproductive toxicity: Repr. 2
 Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)
 Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

Label elements**29 CFR Part 1910.1200****Signal word:** Danger**Pictograms:****Hazard statements**

Highly flammable liquid and vapor
 May be fatal if swallowed and enters airways
 Causes skin irritation
 Causes serious eye damage
 May cause drowsiness or dizziness
 Suspected of damaging fertility or the unborn child
 May cause damage to organs through prolonged or repeated exposure

Precautionary statements

Do not handle until all safety precautions have been read and understood.

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Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients**Mixtures****Hazardous components**

CAS No	Components	Quantity
110-82-7	cyclohexane	54.5 %
108-88-3	toluene	10 %
4253-34-3	methylsilanetriyl triacetat	3 %
1067-33-0	dibutyltin diacetate	0.5 %

4. First-aid measures**Description of first aid measures****After inhalation**

Provide fresh air. Medical treatment necessary.

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. Medical treatment necessary.

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

Observe risk of aspiration if vomiting occurs.

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

Water.

Specific hazards arising from the chemical

Highly flammable. Vapors may form explosive mixtures with air.

Special protective equipment and precautions for fire-fighters

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

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Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Suppress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk.

Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapors may form explosive mixtures with air.

Advice on general occupational hygiene

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.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

8. Exposure controls/personal protection

Control parameters

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Exposure limits

CAS No.	Substance	ppm	mg/m ³	f/cc	Category	Origin
110-82-7	Cyclohexane	300	1050		TWA (8 h)	PEL
		300	1050		TWA (8 h)	REL
108-88-3	Toluene	200	-		TWA (8 h)	PEL
		C 300	-		Ceiling	PEL
108-88-3	Toluene	500	-		Peak	PEL
		100	375		TWA (8 h)	REL
		150	560		STEL (15 min)	REL

Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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. Recommended glove articles KCL Dermatril P Breakthrough time: 60 min NBR (Nitrile rubber)

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing. Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Technical ventilation of workplace. Provide adequate ventilation as well as local exhaust at critical locations.

9. Physical and chemical properties**Information on basic physical and chemical properties**

Physical state: Liquid
 Color: translucent
 Odor: characteristic

Test method**Changes in the physical state**

Melting point/freezing point: not determined
 Boiling point or initial boiling point and boiling range: 77 °C
 Flash point: < 5 °C

Flammability

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Solid/liquid: not applicable
 Gas: not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits: 1,2 vol. %
 Upper explosion limits: 8,3 vol. %
 Auto-ignition temperature: 260 °C DIN 51794

Self-ignition temperature

Solid: not applicable
 Gas: not applicable

Decomposition temperature: not determined

pH-Value: not determined

Water solubility: No

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Vapor pressure:
(at 50 °C) <=1100 hPaDensity: 0,86700 g/cm³

Relative vapour density: not determined

Other information**Information with regard to physical hazard classes**

Oxidizing properties
 Not oxidising.

Other safety characteristics

Solid content: 0,0 %
 Evaporation rate: not determined

Further Information**10. Stability and reactivity****Reactivity**

Highly flammable.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

No known hazardous reactions.

Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapors may form explosive mixtures with air.

Incompatible materials

No information available.

Hazardous decomposition products

No known hazardous decomposition products.

11. Toxicological information

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Information on toxicological effects**Acute toxicity**

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

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
110-82-7	cyclohexane				
	dermal	LD50 mg/kg	12705		
108-88-3	toluene				
	dermal	LD50 mg/kg	12200	Rabbit	GESTIS
	inhalation (4 h) vapour	LC50	49 mg/l	Rat	GESTIS
4253-34-3	methylsilanetriyl triacetat				
	oral	ATE mg/kg	500		
1067-33-0	dibutyltin diacetate				
	oral	LD50	32 mg/kg		
	dermal	LD50 mg/kg	2320		

Irritation and corrosivity

Causes skin irritation

Causes serious eye damage

Sensitizing effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging fertility or the unborn child (toluene)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Specific target organ toxicity (STOT) - single exposure

May cause drowsiness or dizziness (cyclohexane)

Specific target organ toxicity (STOT) - repeated exposure

May cause damage to organs through prolonged or repeated exposure (toluene)

Carcinogenicity (IARC): Toluene (CAS 108-88-3) is listed in group 3.

Aspiration hazard

May be fatal if swallowed and enters airways

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Specific hazards arising from the chemical!

12. Ecological information**Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

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CAS No	Components					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
108-88-3	toluene					
	Acute fish toxicity	LC50	13 mg/l	96 h	Carassius auratus	IUCLID
	Acute algae toxicity	ErC50	12,5 mg/l	72 h		GESTIS

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Components	Log Pow
108-88-3	toluene	2,73

Mobility in soil

The product has not been tested.

Other adverse effects

No information available.

Further information

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

13. Disposal considerations**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

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated packages in the same way as the substance itself.

14. Transport information**Marine transport (IMDG)**

<u>UN number or ID number:</u>	UN 1993
<u>UN proper shipping name:</u>	FLAMMABLE LIQUID, N.O.S. (cyclohexane)
<u>Transport hazard class(es):</u>	3
<u>Packing group:</u>	II
Hazard label:	3



Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

<u>UN number or ID number:</u>	UN 1993
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UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (cyclohexane)
Transport hazard class(es): 3
Packing group: II
 Hazard label: 3



Special Provisions: A3
 Limited quantity Passenger: 1 L
 Passenger LQ: Y341
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 353
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 364
 IATA-max. quantity - Cargo: 60 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: cyclohexane

Special precautions for user

Warning: Combustible liquid.

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

not applicable

15. Regulatory information**U.S. Regulations****National regulatory information**

SARA Section 304 CERCLA:

Cyclohexane (110-82-7): Reportable quantity = 1,000 (454) lbs. (kg)

Toluene (108-88-3): Reportable quantity = 1,000 (454) lbs. (kg)

SARA Section 311/312 Hazards:

Cyclohexane (110-82-7): Fire hazard, Immediate (acute) health hazard

Toluene (108-88-3): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

methylsilanetriyl triacetat (4253-34-3): Immediate (acute) health hazard

dibutyltin diacetate (1067-33-0): Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Cyclohexane (110-82-7): De minimis limit = 1.0 %, Reportable threshold = Standard

Toluene (108-88-3): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(b):

Toluene (108-88-3)

State Regulations**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

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

16. Other information

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Abbreviations and acronyms

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

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

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

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Other data

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.)