Safety Data Sheet

according to 29 CFR 1910.1200(g)

VITAVM LC SEPARATOR

1. Identification

Product identifier

VITAVM LC SEPARATOR

Product group: Zwischenprodukt

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

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.

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.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Supress 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 exhaustion 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

Exposure limits

CAS No	Substance	ppm	mg/m³	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 exhaustion at critical locations.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid	
Color:	translucent	
Odor:	characteristic	
		Test method
Melting point/freezing point:	not determined	
Boiling point or initial boiling point and boiling range:	77 °C	
Flammability:	not applicable	
	not applicable	
Lower explosion limits:	1,2 vol. %	
Upper explosion limits:	8,3 vol. %	

Flash point:	< 5 °C	
Auto-ignition temperature:	260 °C	DIN 51794
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 hPa	
Density:	0,86700 g/cm³	
Relative vapour density:	not determined	

Other information

Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Oxidizing properties

Not oxidising.

Other safety characteristics

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

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

Information on toxicological effects

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

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

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.

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.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

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)

UN number or ID number:	UN 1993
UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (cyclohexane , toluene)
Transport hazard class(es):	3
Packing group:	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)

UN number or ID number:	UN 1993
UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (cyclohexane , toluene)
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

Changes

Revision date:	10.07.2023
Revision No:	4

This data sheet contains changes from the previous version in section(s): 1.

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.)