Safety Data Sheet

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

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

1.1. Product identifier

VITAVM LC SEPARATOR

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

Use of the substance/mixture

Use as laboratory reagent

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name:	VITA Zahnfabrik H.Rauter GmbH & Co.KG	
Post-office box:	1338 79704 Bad Säckingen	
Telephone:	+49(0)7761-562-0	Telefax: +49(0)7761-562-299
e-mail:	info@vita-zahnfabrik.com	
Internet:	www.vita-zahnfabrik.com	

Supplier

Company name:	Company Name	
Street:	Street	
Place:	79704 Town	
Telephone:	Phone	Telefax: Telefax
e-mail:	email	
Contact person:	Contact person	
Internet:	url	

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:
Flammable liquid: Flam. Liq. 2
Acute toxicity: Acute Tox. 4
Aspiration hazard: Asp. Tox. 1
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Dam. 1
Reproductive toxicity: Repr. 1
Specific target organ toxicity - single exposure: STOT SE 3
Specific target organ toxicity - repeated exposure: STOT RE 2
Hazard Statements:
Highly flammable liquid and vapour.
Harmful if swallowed.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye damage.
May damage fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

UN-GHS (Rev.3)

Hazard components for labelling

cyclohexane
dibutyltin diacetate
methylsilanetriyl triacetat
toluene

Signal word: Danger

Pictograms:

Hazard statements

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H360	May damage fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P233	Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
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
110-82-7	cyclohexane	50 - < 55 %
108-88-3	toluene	10 - < 15 %
4253-34-3	methylsilanetriyl triacetat	1 - < 5 %
1067-33-0	dibutyltin diacetate	< 1 %

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 breathing is irregular or stopped, administer artificial respiration. 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

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Observe risk of aspiration if vomiting occurs. Never give anything by mouth to an unconscious person or a person with cramps. Call a doctor.

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.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder.

Unsuitable extinguishing media

Water.

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. 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

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid

contact with skin, eyes and clothes. Use personal protection equipment. Remove persons to safety.

6.2. Environmental precautions

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

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). Treat the recovered material as prescribed in the section on waste disposal.

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 gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

Advice on protection against fire and explosion

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

7.2. 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.

7.3. Specific end use(s)

Use as laboratory reagent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice on limit values

Value:
cyclohexane
100 ppm (350 mg/m³) TWA
300 ppm (1050 mg/m³) STEL

toluene
50 ppm (191 mg/m³) TWA
150 ppm (574 mg/m³) STEL

Tin, organic compounds (as Sn):
0,1 mg/m³ TWA
0,2 mg/m³ STEL

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

Suitable eye protection: goggles.

Hand protection

Wear suitable gloves.
Suitable material: NBR (Nitrile rubber)
Breakthrough time (maximum wearing time): 60 min

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

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.

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	translucent
Odour:	characteristic

		Test method
pH-Value:	not determined	
Changes in the physical state		
Melting point:	not determined	
Initial boiling point and boiling range:	77 °C	
Flash point:	< 5 °C	
Flammability		
Solid:	not applicable	
Gas:	not applicable	

Explosive properties

The product is not: Explosive.
Vapours can form explosive mixtures with air.

Lower explosion limits:	1,2 vol. %

Upper explosion limits:	8,3 vol. %	
Ignition temperature:	260 °C	DIN 51794

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not determined

Oxidizing properties

Not oxidising.

Vapour pressure: (at 50 °C)	<=1100 hPa
Density:	0,86700 g/cm³
Water solubility:	No

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

Highly flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Vapours can form explosive mixtures with air.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 943,4 mg/kg

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
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	ATE	5 mg/kg			

Irritation and corrosivity

Causes skin irritation.

Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

May damage 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.

STOT-single exposure

May cause drowsiness or dizziness. (cyclohexane)

STOT-repeated exposure

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

Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

No information available.

CAS No	Chemical name						
	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	Algae	GESTIS	

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

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

12.4. Mobility in soil

The product has not been tested.

12.5. 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.

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.

SECTION 14: Transport information

Land transport (ADG)

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (cyclohexane, toluene)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Special Provisions:	274 601 640D
Limited quantity:	1 L
Excepted quantity:	E2

Other applicable information (land transport)

HAZCHEM: 3YE

Marine transport (IMDG)

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (cyclohexane, toluene)
14.3. Transport hazard class(es):	3
14.4. 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)

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (cyclohexane, toluene)
14.3. Transport hazard class(es):	3
14.4. 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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Warning: Combustible liquid.

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 48: toluene

Entry 57: cyclohexane

National regulatory information

Additional information

AICS

toluene: Yes.

dibutyltin diacetate: Yes.

cyclohexane: Yes.

methylsilanetriyl triacetat: Yes.

Tin, organic compounds (as Sn): No

SUSMP

toluene: Yes.

dibutyltin diacetate: No

cyclohexane: Yes.

methylsilanetriyl triacetat: No

Tin, organic compounds (as Sn): 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.)