



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

1.1 Product identifier

Trade name: SENTOS V-LR3

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

Use of the Substance/
Mixture industrial use

Uses advised against At this moment we have not identified any uses advised against

1.3 Details of the supplier of the safety data sheet

Company : HPM Technologie GmbH
Rudolf-Diesel-Straße 3
D-72525 Münsingen
Telephone : +49 (0)7381 9344-0
Telefax : +49 (0)7381 9344-88
E-Mail-adress : info@hpmtechnologie.de

1.4 Emergency telephone number

Emergency telephone
number : +49 (0)208-7828-0 available 24h/7d

2 Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Regulation (EC) Nr. 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Aspiration hazard	Category 1	---	H304

For the full text of the H-Statement mentioned in this section, see Section 16.

Classification according to EU Directives 67/548/EEC oder 1999/45/EC

Directive 67/548/EEC or 1999/45/EC	
Hazard symbol/ Category of danger	Risc phrases
Harmful (Xn)	R65
	R66




For the full text of the R-phrases mentioned in this Section, see Section 16.

Most important adverse effects

Human Health : See section 11 for toxicological information
Physical and chemical hazards : See section 9 for physicochemical information.
Potential environmental effects : See section 12 for environmental information.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard symbols : 

Signal word : Danger

Hazard statements : H304 may be fatal if swallowed and enters airways.

Precautionary statements

Response : P301 + P310 IF SWALLOWED: immediately call a POISON CENTER or Doctor/physician.
: P331 Do NOT induce vomiting

Storage : P405 store locked up.

Disposal : P501 Dispose of contents/container to an approved waste Disposal plant

Additional Labelling:

EUH066 Repeated exposure may cause skin dryness or cracking.

Hazardous components which must be listed on the label:

- Hydrocarbons, C10-C13, iso-Alkane, cyclics, <2% aromatics
- Hydrocarbons, C10-C13, n-alkanes, iso-alkanes, cyclics, <2% aromatics

2.3. Other hazards

For Results of PBT and vPvB assessment see section 12.5



3 Composition / information on ingredients

3.1 Mixtures

Chemical nature : Preparation of substances listed below with non-hazardous additions.

Hazardous components	Amount[%]	Classification (Regulation (EC) Nr. 1272/2008)		Classification (67/548/EEC)
		Hazard class/hazard Category	Hazard statements	
Hydrocarbons, C10-C13, isoalkanes, cyclcs, <2% aromatics				
EC-No : 918-317-6	>=25 - <50	Asp. Tox. 1 Aquatic Chronic3	H304 H412	Harmful; Xn; R65 R66
Registration : 01-2119474196-32-xxxx				
Hydrocarbons, C10-C13,n-alkanes, isoalkanes, cyclics <2% aromatics				
EC-No. : 918-481-9	>=25 - <50	Asp. Tox. 1	H304	Harmful;Xn;R65 R66
Registration : 01-2119457273-39-xxxx				

Remarks : Benzene < 0,1 %

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

4 First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area. Take off immediately all contaminated clothing.
- If inhaled : Move to fresh air. If not breathing, if breathing is irregular or if respiratory Arrests occurs, provide artificial respiration or oxygen by trained personnel. Consult a physician after significant exposure. If unconscious place in recovery. Position and seek medical advice.
- In case of skin contact : Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. If eye irritation persists, consult a specialist.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Risk of aspiration! Call a physician immediately. If a person vomits when lying on his back, place him in the recovery position.

4.2 Most important symptoms and effect, both acute and delayed

Symptoms : Symptoms of overexposure may be headache, dizziness, tiredness, nausea And vomiting. Inhalation can cause CNS-depression and narcotics. Dries Out the skin.



Effects	: Risk of serious damage to the lungs (by aspiration) Aspiration may cause pulmonary oedema and pneumonic.
4.3 Indication of any immediate medical attention and special treatment needed	
Treatment	: Treat symptomatically
5 Firefighting measures	
5.1 Extinguishing measures	
Suitable extinguishing media	: use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing Media	: High volume water jet
5.2 Special hazards arising from the substance or mixture	
Specific hazard during Firefighting	: Combustible liquid. Vapours may form explosive mixtures with air. The Product is insoluble and floats on water. Incomplete combustion may form toxic Pyrolysis products. Fire may cause evolution of: carbon oxides
5.3 Advice for firefighters	
Special protective Equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
Further information	: cool closed containers exposed to fire with water spray. Collect contaminated Fire extinguishing water separately. This must not be discharged into drains.
6 Accidental release measure	
6.1 Personal precautions, protective equipment and emergency procedures	
Personal precautions	: Use personal protective equipment. Provide adequate ventilation. Keep away from heat and sources of ignition. Avoid contact with skin and eyes. Do not breathe gas/fumes/vapour/spray.
6.2 Environmental precautions	
Environmental Precautions	: Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and Lakes or drains inform respective authorities. If material reaches Soil inform authorities responsible for such cases.
6.3 Methods and materials for containment and cleaning up	
Methods and material for Containment and cleaning up	: Ensure adequate ventilation. Absorb with liquid-binding material(sand, diatomite, acid binders, universal binders). Treat recovered material as described in the section "Disposal considerations".



6.4	Reference to other sections	
		For personal protection see section 8.
7	Handling and storage	
7.1	Precaution for safe handling	
	Advice on safe handling	: Keep containers tightly closed. Avoid inhalation of vapour or mist. Provide sufficient air exchange and/ or exhaust in work rooms.
	Hygiene measures	: Take off all contaminated clothing immediately. Do not breathe gas/fumes/ vapour/ spray. Avoid contact with the skin and the eyes. Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the End of workday.
7.2	Conditions for safe storage, including any incompatibilities	
	Requirement for storage Areas and containers	: Keep in an area equipped with solvent resistant flooring. Keep containers tightly closed in a dry, cool and well- ventilated place.
	Advice on protection against fire and explosion	: Combustible liquid. Possible formation of ignitable mixtures in air if heated above flash point and/or if sprayed (atomised). Handle only at temperatures at least 15° C below the flash point. Keep away from sources of ignition- No smoking. Take measures to prevent the build-up of electrostatic charge.
7.3	Specific end use(s)	
	Specific use(s)	: No information available
8	Exposure controls/personal protection	
8.1	Control parameters	
	Component: C9-C15 Aliphatics	
	Other Occupational Exposure Limit Values	
	TRGS 900, AGW: 600 mg/m ³ , (2(II)) Hydrocarbon mixture, application as solvent (hydrocarbon solvent) , additive-free	
8.2	Exposure controls	
	Appropriate engineering controls	Refer to protective measures listed in section 7 and 8
	Personal protective equipment	
	Advice	: Required,if exposure limit is exceeded (e.g.OEL)



In case of intensive or longer exposure use self-contained breathing apparatus.
In case of brief exposure or low pollution use breathing filter apparatus.
Recommended Filter type:
Combination filter: A-P2

Hand protection

Advice : Solvent-resistant gloves
Take note of the information given by the producer concerning permeability and Break through times , and of special workplace conditions (mechanical strain, duration of contact).
Protective gloves should be replaced at first signs of wear.
The following materials are suitable:
Material : Nitrile rubber
Break through time : >=480 min
Glove thickness : 0,45 mm

Eye protection

Advice : Tightly fitting safety goggles

Skin and body protection

Advice : Protective work clothing

Enviromental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.
If the product contaminates rivers and lakes or drains inform respective authorities.
If material reaches soil inform authorities responsible for such cases.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form : liquid
Colour : colourless
Odour : characteristics
Odour Threshold : no data available
pH : no data available
Freezing point : no data available
Boiling point/
Boiling rate : > 180 °C
Flash point : 61 - 66°C



Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: 7% (V)
Lower explosion limit	: 0,6% (V)
Vapour pressure	: 0,5 hPa (20°C)
Relative vapour density	: no data available
Density	: 0,797 g/cm ³ (20°C)
Water solubility	: not respectively poorly mixable
Partition coefficient n-octanol/ water	: no data available
auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Explosivity	: formation of explosive air/vapour mixture is possible.
Oxidizing properties	: no data available

9.2 Other information

No further information available.

10 Stability and reactivity

10.1 Reactivity

Advice : No decomposition if stored and applied as directed.

10.2 Chemical stability

Advice : Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Formation of explosive air/vapour mixtures is possible.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks. Keep away from direct sunlight.



10.5 Incompatible materials

Materials to avoid : strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : Fire may cause evolution of: Carbon oxides, under certain fire conditions, traces of other toxic products cannot be excluded.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity	
Oral	
For this mixture is no data available. Please find this information in the listing of the Component/components below in the MSDS.	
Inhalation	
For this mixture is no data available. Please find this information in the listing of the component/components below in the MSDS.	
Dermal	
For this mixture is no data available. Please find this information in the listing of the component/components below in the MSDS.	
Irritation	
Skin	
Result	: Repeated exposure may cause skin dryness or cracking.
Eyes	
Result	: Based an available data, the classification criteria are not met.
Sensitisation	
Result	: Based on available data, the classification criteria are not met.
CMR effects	
CMR Properties	
Carcinogenicity	: For this product currently is no data available. Based on available data, the classification criteria are not met.
Mutagenicity	: For this product currently is no data available. Based on available data, the classification criteria are not met.
Reproductive toxicity	: For this product currently is no data available. Based on available data, the classification criteria are not met.
Specific Target Organ Toxicity	
Single exposure	



remark	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
Repeated exposure	
remark	: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Other toxic properties	
Repeated dose toxicity	
No data available	
Aspiration Hazard	
May be fatal if swallowed and enters airways.	
Component: Hydrocarbons C10-C13, isoalkanes, cyclics, <2% aromatics	
Acute toxicity	
Oral	
LD50 Oral	: >5000mg/kg (rat, male and female) (OECD-Test Guideline 401) Aspiration may cause pulmonary oedema and pneumonitis.
Inhalation	
LC50	: >5 mg/l (rat, male and female) (OECD Test Guideline 403) Inhalation may cause central nervous system effects.
Dermal	
LD50 Dermal	: >5000mg/kg (rabbit) (OECDTest Guideline 402)
Components: Hydrocarbons, C10-C13, isoalkanes, n-Alkanes, cyclics, >2% aromatics	
Acute toxicity	
Oral	
LD50	: >5000mg/kg (rat) Data based on test results or dta from a comparable product.
Inhalation	
LC50	: >4,951 mg/l (rat, vapour) (OECDTest Guideline 403) Data based on test results or data from a comparable product.
Dermal	
LD50	:>5000 mg/kg (rabbit) (OECD Test Guideline 402) Data based on test results or data from a comparable product.



12 Ecological information

12.1 Toxicity

Component: Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics	
Acute toxicity	
Fish	
LL50	: > 1000 mg/l (Oncorhynchus aquabonita ;96 h) (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	
EL50	: 1000mg/l (Daphnia magna; 48h) (OECD Test Guideline 202)
Algae	
EL50	: 1000mg/l (Pseudokirchneriella subcapitata (green algae); 72h) (Toxicity to algae; OECD Test Guideline 201)
Component: Hydrocarbons, C10-C13,n-alkane, isoalkanes, cyclics, <2% aromatics	
Acute toxicity	
Fish	
LLO	: 1000 mg/l (Oncorhynchus mykiss (rainbow trout); 96 h) (Toxicity to fish)
Toxicity to daphnia and other aquatic invertebrates	
ELO	: 1000 mg/l (Daphnia magna (Water flea; 48h) (Toxicity to daphnia)
Algae	
ELO	: 1000 mg/l (Pseudokirchneriella subcapitata (green algae); 72h) (Toxicity to algae)

12.2 Persistence and degradability

Component: Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics	
Persistence and degradability	
Persistence	
Result	: no data available
Biodegradability	
Result	: Readily biodegradable
Component: Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2 aromatics	
Persistence and degradability	
Result	: Transformation due to photolysis not expected to be significant. Transformation due to hydrolysis not expected to be significant.
Biodegradability	
Result	: 80% (Exposure time: 28d) Readily biodegradable.



12.3 Bioaccumulative potential

Component:	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics
Bioaccumulation	
Result	: not determined
Component:	Hydrocarbons, C10-C13, isoalkanes, n-alkanes, cyclics, <2% aromatics
Bioaccumulation	
Result	: no data available

12.4 Mobility in soil

Component:	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics
Mobility	
	: Highly volatile, will partition rapidly to air, Not expected to partition to Sediment and wastewater solids.
Component:	Hydrocarbons, C10-C13, isoalkane, cyclics, <2% aromatics
Mobility	
	: no data available

12.5 Result of PTB- and vPvB assessment

Component:	Hydrocarbons, C10-C13, isoalkanes, n-alkanes, cyclics, <2% aromatics
Results of PBT and vPvB assessment	
Result	: This substance is not considered to be persistent, bioaccumulating nor Toxic (PBT) This substance is not considered to be very persistent nor very Bioaccumulative (vPvB).
Component:	Hydrocarbons, C10-C13, isoalkanes, cyclics, <2% aromatics
Result	: This substance is not considered to be persistent, bioaccumulating nor Toxic (PBT) This substance is not considered to be very persistent nor very Bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information	
Result	: Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

13 Disposal considerations

13.1. Waste treatment methods

Product : Disposal together with normal waste is not allowed. Do not let product enter drains. Can be incinerated when in compliance with local regulations.

Contaminated Packaging : Empty remaining contents. Do not burn, or use a cutting torch on, the empty drum. Risk of explosion. Empty containers should be delivered to local recyclers for disposal or to the provider for their reutilization in case of being subject to a return and deposit system.

European Waste Catalogue No. : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in Consultation with the regional waste disposer.



14 Transport information

Not dangerous goods for ADR, RID and IMDG.

14.1 UN-Number

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packaging group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

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

IMDG : Not applicable.

15 Regulatory information

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

WGK (DE) : WGK:1; slightly water endangering; WGK (DE);

Major Accident Hazard Legislation : Falls under the German StörfallIV.13

Other regulations : Occupational restrictions: Take note of Dir 92/85/EEC on the safety and health of pregnant workers at work and of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

no data available



16 Other information

Full text of R-phrases referred to under sections 2 and 3.

- R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.

Full text of H-Statements referred to under sections 2 and 3.

- H304 May be fatal if swallowed and enters airways.
H412 Harmful to aquatic life with long lasting effects.

Further information

Key literature references and sources for data : Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.

Other information : The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.
The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text