



**VORTEX**  
PREMIUM SOLVENTS

## Safety Data Sheet

Benzine

Version 1.0

Issue Date 01.10.2023

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

**Product identifier**

**Trade name**

Vortex Benzine - 1114

**Synonyms**

Hydrocarbons, C5-C7, n-alkanes, isoalkanes, n-hexane rich

**Relevant identified uses of the substance or mixture and uses advised against**

**Use**

Industrial Use.

**Manufacturer or supplier's details**

**Company**

Nyundo Trading (Pty) Ltd

**Address**

5A Jig Rd  
Montague Gardens  
Cape Town  
South Africa  
7441

**Telephone**

+27215102679

**E-mail address**

info@vortexsolvents.com

**Emergency telephone number**

+27 (0)17 610 4444 (South Africa)  
0861 555 777 RSA-Local only

### SECTION 2. Hazards identification

**Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

**Classification**

Flammable liquids

Category 2

Skin irritation

Category 2

Specific target organ toxicity - single  
exposure (Central nervous system)

Category 3

Specific target organ toxicity - repeated

Category 2



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exposure

Aspiration hazard

Short-term (acute) aquatic hazard

Long-term (chronic) aquatic hazard

Reproductive toxicity

Category 1

Category 1

Category 1

Category 2

### Label elements

#### REGULATION (EC) No 1272/2008

Hazard pictograms

:



Signal word

:

Danger

Hazard statements

:

H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H336 May cause drowsiness or dizziness.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H361f Suspected of damaging fertility.  
H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statements



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#### Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P233 Keep container tightly closed.

P201 + P202 Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment.

#### Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331 Do NOT induce vomiting.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P391 Collect spillage.

#### Storage

P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

#### Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

#### Other hazards

None known.



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### SECTION 3. Composition/information on ingredients

#### Mixture

##### n-Hexane

**Contents:**  $\geq 40.00$  -  $\leq 80.00$  %W/W

**CAS-No.** 110-54-3

**Index-No.** 601-037-00-0

**EC-No.** 203-777-6

**Hazard statements** *H225 H315 H373 H304 H336 H411  
H361f*

##### Pentane

**Contents:**  $\geq 10.00$  -  $\leq 20.00$  %W/W

**CAS-No.** 109-66-0

**Index-No.** 601-006-00-1

**EC-No.** 203-692-4

**Hazard statements** *H224 H304 H336 H411*

##### Heptane; n-Heptane

**Contents:**  $\geq 20.00$  -  $\leq 30.00$  %W/W

**CAS-No.** 142-82-5

**Index-No.** 601-008-00-2

**EC-No.** 205-563-8

**Hazard statements** *H225 H315 H304 H336 H410 H400*





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### SECTION 4. First aid measures

#### Description of necessary first-aid measures

<b>Inhalation</b>	Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
<b>Skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.
<b>Eye contact</b>	Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
<b>Ingestion</b>	If swallowed, seek medical advice immediately and show this container or label. Prevent vomiting if possible. Do NOT induce vomiting.

#### Most important symptoms/effects, acute and delayed

Refer to SECTION 11

### SECTION 5. Firefighting measures

<b>Suitable extinguishing media</b>	Foam. Dry powder. Carbon dioxide,
<b>Special hazards arising from the substance or mixture</b>	Flash back possible over considerable distance.
<b>Special protective equipment for firefighters</b>	Wear self-contained breathing apparatus and protective suit.

### SECTION 6. Accidental release measures

<b>Personal precautions</b>	Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist.
<b>Environmental precautions</b>	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.



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**Methods for cleaning up** Soak up with inert absorbent material and dispose of as hazardous waste.

**Reference to other sections** Refer to section 8 and 13

### SECTION 7. Handling and storage

**Safe handling advice** Avoid inhalation of vapour or mist. Wear personal protective equipment.

**Advice on protection against fire and explosion** Keep away from heat and sources of ignition. Use only explosion-proof equipment.

**Requirements for storage areas and containers** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Advice on common storage** No data available

### SECTION 8. Exposure controls/personal protection

Components with workplace control parameters

#### NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control parameters	Update	Basis
N-HEXANE	TWA	70 mg/m <sup>3</sup>	1995	South Africa RELs
	TWA	20 ppm	1995	South Africa RELs
N-HEPTANE N-HEPTANE	TWA	1,600 mg/m <sup>3</sup>	1995	South Africa RELs
	TWA	400 ppm	1995	South Africa RELs
	STEL	2,000 mg/m <sup>3</sup>	1995	South Africa RELs
	STEL	500 ppm	1995	South Africa RELs
PENTANE, ALL ISOMERS PENTANE, ALL ISOMERS	TWA	1,800 mg/m <sup>3</sup>	1995	South Africa RELs
	TWA	600 ppm	1995	South Africa RELs
	STEL	2,250 mg/m <sup>3</sup>	1995	South Africa RELs
	STEL	750 ppm	1995	South Africa RELs

Exposure controls



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### Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

### Personal protective equipment

#### Respiratory protection

Suitable respiratory equipment:

#### Hand protection

Gloves suitable for permanent contact:

Material: nitrile rubber/nitrile latex

Break through time: > 8 h

Material thickness: 0.35 mm

Gloves suitable for permanent contact:

Material: fluoro carbon rubber - FKM

Break through time: > 8 h

Material thickness: 0.4 mm

Gloves suitable for permanent contact:

Material: polychloroprene

Break through time: < 1 h

Material thickness: 0.5 mm

Unsuitable gloves

Material: butyl-rubber, natural rubber/natural latex,

Polyvinylchloride

#### Eye protection

Safety glasses with side-shields

#### Skin and body protection

Safety shoes Protective suit.

#### Hygiene measures

Wash hands before breaks and immediately after handling the product.

## SECTION 9. Physical and chemical properties

### Information on basic physical and chemical properties

Form	Liquid
State of matter	Liquid; at 20 ° C; 1,013 hPa
Colour	Clear Colourless
Odour	Slight



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Odour Threshold	No data available
Boiling point/range	50 - 100 ° C
Flash point	< -1 ° C; closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Auto ignition temperature	255 ° C
Lower explosion limit	0.9 %(V)
Upper explosion limit	8.1 %(V)
Vapour pressure	130 hPa; ASTM D 2879-86
Relative vapour density	1.35
Density	0.66 g/cm <sup>3</sup> ; 20 ° C
Water solubility	Immiscible.
Partition coefficient: n-octanol/water	log Pow: 5.8
Viscosity, dynamic	0.38 mPa.s; 20 ° C

#### SECTION 10. Stability and reactivity

Reactivity	Stable under normal conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks.
Materials to avoid	Strong acids and oxidizing agents
Hazardous decomposition products	Carbon oxides.

#### SECTION 11. Toxicological information

Acute oral toxicity	Hydrocarbons, C5-C7, n-alkanes, isoalkanes, n-hexane rich: LD50 Rat: > 16,750 mg/kg;
Acute inhalation toxicity	Hydrocarbons, C5-C7, n-alkanes, isoalkanes, n-hexane rich: LC50 Rat: 4 h; 259,354 mg/l;
Acute dermal toxicity	Hydrocarbons, C5-C7, n-alkanes, isoalkanes, n-hexane rich: LD50 Rabbit: 3,350 mg/kg;
Skin irritation	Irritating to skin.





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<b>Repeated dose toxicity</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Further Information</b>	May be fatal if swallowed and enters airways.
<b>Further Information</b>	Hydrocarbons, C5-C7, n-alkanes, isoalkanes, n-hexane rich: May cause drowsiness or dizziness. Suspected of damaging fertility or unborn child.

### SECTION 12. Ecological information

<b>Toxicity to fish</b>	Hydrocarbons, C5-C7, n-alkanes, isoalkanes, n-hexane rich: Oncorhynchus mykiss; 96 h; LL50; 13.3 mg/l;
<b>Toxicity to algae</b>	Hydrocarbons, C5-C7, n-alkanes, isoalkanes, n-hexane rich: Chlorella pyrenoidosa 48 h; EL50; 9.947 mg/l;
<b>Toxicity to fish</b>	Toxic to aquatic life with long lasting effects.
<b>Biodegradability</b>	Hydrocarbons, C5-C7, n-alkanes, isoalkanes, n-hexane rich: Readily biodegradable.
<b>Mobility in soil</b>	No data available
<b>Results of PBT and vPvB assessment</b>	Not expected to be a PBT and vPvB based on being readily biodegradable.

### SECTION 13. Disposal considerations

<b>Product</b>	Dispose of in accordance with local regulations.
<b>Packaging</b>	Dispose of spent product packaging responsibly and lawfully with due consideration for health, safety and the environment.

### SECTION 14. Transport information

<b>ADR</b>	
<b>UN number:</b>	3295
<b>Class:</b>	3
<b>Packaging group:</b>	II; F1;
<b>Proper shipping name:</b>	HYDROCARBONS, LIQUID, N.O.S.



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(pentane, n-hexane, Heptane)

### RID

**UN number:** 3295  
**Class:** 3  
**Packaging group:** II; F1  
**Proper shipping name:** HYDROCARBONS, LIQUID, N.O.S.  
(pentane, n-hexane, Heptane)

### ADNR

**UN number:** 3295  
**Class:** 3  
**Packaging group:** II; F1  
**Proper shipping name:** HYDROCARBONS, LIQUID, N.O.S.  
(pentane, n-hexane, Heptane)

### IMDG

**UN number:** 3295  
**Class:** 3  
**EmS:** F-E, S-D  
**Packaging group:** II  
**Proper shipping name:** HYDROCARBONS, LIQUID, N.O.S.  
(pentane, n-hexane, Heptane)

**Marine pollutant** Marine pollutant

### ICAO/IATA

**UN number :** 3295  
**Class:** 3  
**Packaging group:** II  
**Proper shipping name:** HYDROCARBONS, LIQUID, N.O.S.  
(pentane, n-hexane, Heptane)

## SECTION 15. Regulatory information

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

**Canadian Domestic Substances List (DSL)**

All chemical constituents are listed in: Canadian Domestic Substances List (DSL) (See chapter 3)



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<b>Australian Inv. of Chem. Substances (AICS)</b>	All chemical constituents are listed in: Australian Inv. of Chem. Substances (AICS) (See chapter 3)
<b>New Zealand Inventory of Chemicals (NZIoC)</b>	All chemical constituents are listed in: New Zealand Inventory of Chemicals (NZIoC) (See chapter 3)
<b>Jap. Inv. of Exist. &amp; New Chemicals (ENCS)</b>	All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals (ENCS) (See chapter 3)
<b>Japan. Industrial Safety &amp; Health Law (ISHL)</b>	All chemical constituents are listed in: Japan. Industrial Safety & Health Law (ISHL) (See chapter 3)
<b>Korea. Existing Chemicals Inventory (KECI)</b>	All chemical constituents are listed in: Korea. Existing Chemicals Inventory (KECI) (See chapter 3)
<b>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</b>	All chemical constituents are listed in: Philippines Inventory of Chemicals and Chemical Substances (PICCS) (See chapter 3)
<b>China Inv. Existing Chemical Substances (IECSC)</b>	All chemical constituents are listed in: China Inv. Existing Chemical Substances (IECSC) (See chapter 3)
<b>USA TSCA Inventory</b>	All chemical constituents are listed in: USA TSCA Inventory (See chapter 3)

## SECTION 16. Other information

### Full text of H-Statements

H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.



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Every reasonable endeavor has been made to prepare this Safety Data Sheet (SDS) in adherence to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The SDS exclusively furnishes details concerning the health, safety, and environmental risks as of the date of issuance. Its purpose is to aid in the secure reception, utilization, and handling of this product in work environments and does not supplant any product specifications or information.

As Nyundo and its affiliated entities cannot foresee or control all circumstances in which this product may be managed, used, or received in workplaces, it is the responsibility of each user, recipient, or handler to assess this SDS within the particular context in which the product will be received, managed, or used. Users, handlers, or recipients must guarantee that appropriate safety measures are established for health and safety. This does not eliminate the necessity for conducting relevant risk assessments as needed.

Furthermore, it is the responsibility of the recipient, handler, or user to communicate this information to all pertinent parties involved in the reception, use, or handling of this product. While all reasonable efforts have been made to compile this SDS, Nyundo does not explicitly guarantee the accuracy of the information contained herein or assume liability for incomplete data or any advice provided.

The transfer of risk to the purchaser occurs in accordance with the specific terms and conditions of sale when this product is sold.