

SECTION 1: Identification

1.1. Product identifier

Product form	: Substance
Trade name	: C9: C11
Type of product	: Paraffine
UN-No. (ADR)	: 3295
Product code	: 1443
Product group	: End product

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

Use of the substance/mixture	: Solvents
Use of the substance/mixture	: Pesticides
	Cosmetics
	Adhesives, binding agents

1.3. Supplier's details

Distributor

Rolfes Chemicals Pty Ltd
Cnr Brammer and strachan street
P.O. Box 14075, Wadeville
1422 Germiston JHB – South Africa Gauteng
South Africa
T +27 11 873 0157

1.4. Emergency telephone number

Emergency number : 0861114753

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Flammable liquids, Category 3	H226
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336
Aspiration hazard, Category 1	H304
Full text of H-statements: see section 16	

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA) :



Signal word (GHS-ZA) : Danger

Hazard statements (GHS ZA) : H226 - Flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS ZA) : 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 equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

P261 - Avoid breathing vapours, spray, mist.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection, protective clothing, protective gloves.
P301+P316 - IF SWALLOWED: Get emergency medical help immediately.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P319 - Get medical help if you feel unwell.
P331 - Do NOT induce vomiting.
P370+P378 - In case of fire: Use dry extinguishing powder, carbon dioxide (CO₂) to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : Flammable liquid and vapour, May cause drowsiness or dizziness, May be fatal if swallowed and enters airways.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Trisol OD
Product identifiers: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
Alkanes, C8-11	-	100	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304
octane	CAS-No.: 111-65-9		Flam. Liq. 2, H225 Aquatic Acute 1, H400
nonane	CAS-No.: 111-84-2		Not classified
Decane	CAS-No.: 124-18-5		Flam. Liq. 3, H226
Undecane	CAS-No.: 1120-21-4		Not classified

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : May cause drowsiness or dizziness.
Symptoms/effects after ingestion : Risk of lung oedema.

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

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 : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing Fumes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing Fumes.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

octane (111-65-9)	
South Africa - Occupational Exposure Limits (Restricted Limits)	
Local name	n-Octane
OEL eight hour TWA [ppm]	375 ppm
OEL eight hour TWA	1800 mg/m ³
RHCA - STEL/C [ppm]	300 ppm
RHCA - STEL/C	1450 mg/m ³
Regulatory reference	Government Notice. R: 1179
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	n-Octane
OEL TWA	1450 mg/m ³
OEL TWA [ppm]	300 ppm
OEL STEL	1800 mg/m ³
OEL STEL [ppm]	375 ppm
Regulatory reference	Government Notice No. R 904

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.
Colour : Colourless.
Odour : slight.
Odour threshold : < ppm
pH : No data available
pH solution : No data available
Relative evaporation rate (butylacetate=1) : No data available
Relative evaporation rate (ether=1) : No data available

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

Melting point	: -120 °C
Freezing point	: No data available
Boiling point	: 130 – 210 °C
Flash point	: 42 °C
Auto-ignition temperature	: 210 °C
Decomposition temperature	: No data available
Flammability	: Flammable liquid and vapour.
Vapour pressure	: 3 hPa
Vapour pressure at 50°C	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: No data available
Relative density of saturated gas/air mixture	: No data available
Density	: 0,7283
Relative gas density	: No data available
Solubility	: Material insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: -0,821 mm ² /s
Viscosity, dynamic	: 0,845 mPa·s
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosion limit	: 0,4 vol %
Upper explosion limit	: 7 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

octane (111-65-9)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 24,88 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
nonane (111-84-2)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	17 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), 95% CL: 14 - 21
Decane (124-18-5)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 oral	> 5000 mg/kg bodyweight Animal:
LD50 dermal rabbit	≥ 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	≥ 6,1 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
Undecane (1120-21-4)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	≥ 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
Alkanes, C8-11	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	> 5000 (≤) mg/l
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause drowsiness or dizziness.
Alkanes, C8-11	
STOT-single exposure	Not available
STOT-repeated exposure	: Not classified
octane (111-65-9)	
NOAEC (inhalation, rat, vapour, 90 days)	24,3 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
nonane (111-84-2)	
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

nonane (111-84-2)	
NOAEC (inhalation, rat, vapour, 90 days)	24,3 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (subchronic, oral, animal/male, 90 days)	100 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Decane (124-18-5)	
NOAEC (inhalation, rat, vapour, 90 days)	> 10,4 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
Aspiration hazard	: May be fatal if swallowed and enters airways.
C9: C11	
Viscosity, kinematic	-0,821 mm ² /s
octane (111-65-9)	
Animal studies and expert judgment for classification	False
nonane (111-84-2)	
Animal studies and expert judgment for classification	False
Decane (124-18-5)	
Animal studies and expert judgment for classification	False
Undecane (1120-21-4)	
Animal studies and expert judgment for classification	False
Alkanes, C8-11	
Animal studies and expert judgment for classification	False

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

octane (111-65-9)	
EC50 - Crustacea [1]	0,3 mg/l Test organisms (species): Daphnia magna
LOEC (chronic)	0,32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0,17 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
nonane (111-84-2)	
EC50 - Crustacea [1]	0,2 mg/l Test organisms (species): Daphnia magna
LOEC (chronic)	0,32 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0,17 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

C9: C11	
Persistence and degradability	No additional information available

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

12.3. Bioaccumulative potential

C9: C11

Bioaccumulative potential : No additional information available

12.4. Mobility in soil

C9: C11

Mobility in soil : No additional information available

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available




SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
3295	3295	3295
14.2. Proper Shipping Name		
HYDROCARBONS, LIQUID, N.O.S.	HYDROCARBONS, LIQUID, N.O.S.	Hydrocarbons, liquid, n.o.s.
14.3. Transport hazard class(es)		
3	3	3
		
14.4. Packing group		
III	III	III
14.5. Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available		

14.6. Special precautions for user

SANS

Special provisions (SANS) : 223
Limited quantities (SANS) : 5 L
Limited quantities (SANS) : 5 L
Packagings, large packagings and IBCs Packing instructions (SANS) : P001, IBC03, LP01
Portable tank and bulk containers instructions (SANS) : T4

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

Portable tank and bulk container special provisions (SANS) : TP1, TP29

IMDG

Special provisions (IMDG) : 223
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T4
Tank special provisions (IMDG) : TP1, TP29
EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG) : A
Properties and observations (IMDG) : Immiscible with water.

IATA

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y344
PCA limited quantity max net quantity (IATA) : 10L
PCA packing instructions (IATA) : 355
PCA max net quantity (IATA) : 60L
CAO packing instructions (IATA) : 366
CAO max net quantity (IATA) : 220L
Special provisions (IATA) : A3, A324
ERG code (IATA) : 3L

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

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health, and environmental national regulations specific for the product

No additional information available

SECTION 16: Other information

Issue date : 2023/04/18
Revision date : 2023/06/12
Supersedes : 2023/04/18

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes	Added	No additional information available
	Flammability	Added	No additional information available
	UN-No.(SANS)	Added	No additional information available
	Proper Shipping Name (IMDG)	Added	No additional information available
	Danger labels (IMDG)	Added	No additional information available
	EmS-No. (Spillage)	Added	No additional information available
	EmS-No. (Fire)	Added	No additional information available
	Limited quantities (IMDG)	Added	No additional information available
	Stowage category (IMDG)	Added	No additional information available
	Tank instructions (IMDG)	Added	No additional information available

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

Indication of changes			
Section	Changed item	Change	Comments
	IBC packing instructions (IMDG)	Added	No additional information available
	Excepted quantities (IMDG)	Added	No additional information available
	Special provisions (IMDG)	Added	No additional information available
	Danger labels (SANS)	Added	No additional information available
	Portable tank and bulk container special provisions (SANS)	Added	No additional information available
	Portable tank and bulk containers instructions (SANS)	Added	No additional information available
	Packagings, large packagings and IBCs Packing instructions (SANS)	Added	No additional information available
	Special provisions (SANS)	Added	No additional information available
	Limited quantities (SANS)	Added	No additional information available
	Packing group (SANS)	Added	No additional information available
	Proper Shipping Name (SANS)	Added	No additional information available
	Tank special provisions (IMDG)	Added	No additional information available
	Revision date	Added	No additional information available
	Precautionary statements (GHS ZA)	Modified	No additional information available
1.2	Use of the substance/mixture	Added	No additional information available
2.1	Adverse physicochemical, human health and environmental effects	Added	No additional information available
4	First-aid measures after skin contact	Added	No additional information available
4	First-aid measures after inhalation	Added	No additional information available
4	First-aid measures after eye contact	Added	No additional information available
4	Other medical advice or treatment	Added	No additional information available
4	Symptoms/effects after ingestion	Added	No additional information available
4	First-aid measures after ingestion	Added	No additional information available
4	Symptoms/effects	Added	No additional information available
4	First-aid measures general	Added	No additional information available
5.1	Suitable extinguishing media	Added	No additional information available
5.2	Fire hazard	Added	No additional information available
5.2	Hazardous decomposition products in case of fire	Added	No additional information available
5.3	Protection during firefighting	Added	No additional information available
6	Protective equipment	Added	No additional information available
6	Other information	Added	No additional information available
6	Environmental precautions	Added	No additional information available
6	Methods for cleaning up	Added	No additional information available
6	Emergency procedures	Added	No additional information available
7.1	Precautions for safe handling	Added	No additional information available
7.1	Hygiene measures	Added	No additional information available

C9: C11

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 8

Indication of changes			
Section	Changed item	Change	Comments
7.2	Storage conditions	Added	No additional information available
7.2	Technical measures	Added	No additional information available
8.2	Environmental exposure controls	Added	No additional information available
8.2	Respiratory protection	Added	No additional information available
8.2	Hand protection	Added	No additional information available
8.2	Eye protection	Added	No additional information available
8.2	Appropriate engineering controls	Added	No additional information available
8.2	Skin and body protection	Added	No additional information available
10	Reactivity	Added	No additional information available
10	Conditions to avoid	Added	No additional information available
10	Possibility of hazardous reactions	Added	No additional information available
10	Chemical stability	Added	No additional information available
10	Hazardous decomposition products	Added	No additional information available
12.1	Ecology - general	Added	No additional information available
13	Additional information	Added	No additional information available
13	Waste treatment methods	Added	No additional information available
14.1	UN-No. (IMDG)	Added	No additional information available
14.4	Packing group (IMDG)	Added	No additional information available
14.6	Packing instructions (IMDG)	Added	No additional information available

Full text of H-statements	
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H336	May cause drowsiness or dizziness
H400	Very toxic to aquatic life

Safety Data Sheet (SDS), South Africa

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.