

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

1.1. GHS product identifier

Product form : Mixture
Trade name : Formaldehyde 37%
Formula : HCHO

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Industrial uses

1.4. Supplier's details

Distributor

Rolfes Chemicals (Pty) Ltd.
Cnr Brammer and Strachan Street,
P.O. Box P.O. Box 14075, Wadeville
1422 Germiston – South Africa Gauteng
T 011 873 0157

1.5. Emergency phone number

Emergency number : 086 111 4753

SECTION 2: Hazard identification

2.1. GHS classification of the substance/mixture and any national or regional information

Classification according to the United Nations GHS

Flammable liquids, Category 2	H225
Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312
Skin corrosion/irritation, Category 1	H314
Serious eye damage/eye irritation, Category 1	H318
Hazardous to the aquatic environment – Acute Hazard, Category 2	H401
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : Highly flammable liquid and vapour, Harmful in contact with skin, Harmful if swallowed, Causes severe skin burns and eye damage, Causes serious eye damage, Toxic to aquatic life, Toxic to aquatic life with long lasting effects.

2.2. GHS label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA) :



Signal word (GHS-ZA) : Danger
Hazardous ingredients : Methanol ; Methyl alcohol
Hazard statements (GHS ZA) : H225 - Highly flammable liquid and vapour
H302+H312 - Harmful if swallowed or in contact with skin
H314 - Causes severe skin burns and eye damage
H411 - Toxic to aquatic life with long lasting effects

Formaldehyde 37%

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

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 electrical, lighting equipment. P242 - Use non-sparking tools. P243 - Take action to prevent static discharges. P260 - Do not breathe dusts or mists. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P301+P317 - IF SWALLOWED: Get medical help. P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302+P352 - IF ON SKIN: Wash with plenty of soap and water 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. P305+P354+P338 - IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P316 - Get emergency medical help immediately. P317 - Get medical help. P321 - Specific treatment (see supplemental first aid instruction on this label). P330 - Rinse mouth. P362+P364 - Take off contaminated clothing and wash it before reuse. P363 - Wash contaminated clothing before reuse. P370+P378 - In case of fire: Use dry extinguishing powder, foam to extinguish. P391 - Collect spillage. 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.
P-statements for label (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 electrical, lighting equipment.; P242 - Use non-sparking tools.; P243 - Take action to prevent static discharges.; P260 - Do not breathe dusts or mists.; P264 - Wash hands, forearms and face thoroughly after handling.; P270 - Do not eat, drink or smoke when using this product.; P273 - Avoid release to the environment.; P280 - Wear eye protection, protective clothing, protective gloves.; P301+P317 - IF SWALLOWED: Get medical help.; P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.; P302+P352 - IF ON SKIN: Wash with plenty of soap and water; 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.; P305+P354+P338 - IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.; P316 - Get emergency medical help immediately.; P317 - Get medical help.; P321 - Specific treatment (see supplemental first aid instruction on this label).; P330 - Rinse mouth.; P362+P364 - Take off contaminated clothing and wash it before reuse.; P363 - Wash contaminated clothing before reuse.; P370+P378 - In case of fire: Use dry extinguishing powder, foam to extinguish.; P391 - Collect spillage.; 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 which do not result in classification or are not covered by the GHS

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Formaldehyde 37%

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

3.2. Mixture

Name	Product identifier	%	Classification according to the United Nations GHS
Formaldehyde	CAS-No.: 50-00-0	36.5 – 38	Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Methanol ; Methyl alcohol	CAS-No.: 67-56-1	10 – 15	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Skin Corr. 1, H314 Eye Dam. 1, H318

SECTION 4: First aid measures

4.1. Description of necessary 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. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms/effect, acute and delayed

Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Highly flammable liquid and vapour.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Formaldehyde 37%

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin, eyes and clothing. Do not breathe dust/fume/gas/mist/vapours/spray.

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".
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

For containment : Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
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 : Ensure good ventilation of the work station. 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. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

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.
Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Formaldehyde (50-00-0)	
South Africa - Occupational Exposure Limits (Maximum Limits)	
Local name	Formaldehyde
RHCA - OEL	0.6 ppm
RHCA - STEL/C	0.2 ppm

Formaldehyde 37%

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

Formaldehyde (50-00-0)	
Remark	CARC (denotes carcinogenicity, which is based on GHS categorisation, including category 1A and 1B), DSEN (dermal sensitisation, potential to produce dermal sensitisation), RSEN (respiratory sensitisation, potential to produce respiratory sensitisation)
Regulatory reference	Government Notice No. R. 280, 2021
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	Formaldehyde
OEL TWA	1 mg/m ³
	1 ppm
OEL STEL	3 mg/m ³
	2 ppm
Regulatory reference	Government Notice No. R 904
Methanol ; Methyl alcohol (67-56-1)	
South Africa - Occupational Exposure Limits (Restricted Limits)	
Local name	Methanol [methyl alcohol]
OEL eight hour TWA	500 ppm
RHCA - STEL/C	400 ppm
Remark	SKIN (danger of cutaneous absorption)
Regulatory reference	Government Notice No. R. 280, 2021
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	Methanol (Methyl alcohol)
OEL TWA	260 mg/m ³
	200 ppm
OEL STEL	310 mg/m ³
	250 ppm
Remark	Sk (Danger of cutaneous absorption)
Regulatory reference	Government Notice No. R 904
South Africa - Biological limit values	
Local name	Methanol
BEI	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B (background), Ns (non-specific)
Regulatory reference	Government Notice No. R. 280, 2021

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

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)

Formaldehyde 37%

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Colorless liquid.
Molecular mass	: 30.02 (>) g/mol
Colour	: Colourless
Odour	: Pungent
Odour threshold	: No data available
pH	: 3
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: -15 °C
Freezing point	: No data available
Boiling point	: 98 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability	: Highly flammable liquid and vapour.
Vapour pressure	: 2.4 kPa
Vapour pressure at 50°C	: No data available
Relative vapour density at 20°C	: 1.03
Relative density	: No data available
Relative density of saturated gas/air mixture	: No data available
Density	: 1.08
Relative gas density	: No data available
Solubility	: Soluble in dimethyl ether. soluble in water. Soluble in organic solvents.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Physical state	: Liquid
Appearance	: Colorless liquid.

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10: Stability and Reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

Formaldehyde 37%

Safety Data Sheet

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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) : Harmful if swallowed.
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Not classified

Formaldehyde 37%

ATE ZA (oral)	666.667 mg/kg bodyweight
ATE ZA (Dermal)	2000 mg/kg bodyweight

Methanol ; Methyl alcohol (67-56-1)

LD50 oral rat	100 mg/kg Source: National Institute of Environmental Research NCIS
LD50 dermal rabbit	300 mg/kg Source: ECHA

Skin corrosion/irritation : Causes severe skin burns.
pH: 3
Serious eye damage/irritation : Causes serious eye damage.
pH: 3
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.

Formaldehyde (50-00-0)

LC50 - Fish [1]	6.7 mg/l Test organisms (species): Morone saxatilis
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Formaldehyde 37%

Safety Data Sheet

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Formaldehyde (50-00-0)	
EC50 - Crustacea [1]	5.8 mg/l Test organisms (species): Daphnia pulex
NOEC (chronic)	≥ 6.4 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 48 mg/l Test organisms (species): Oryzias latipes Duration: '28 d'

Methanol ; Methyl alcohol (67-56-1)	
LC50 - Fish [1]	15400 mg/l Source: ECHA
EC50 96h - Algae [1]	22000 mg/l Source: ECHA
NOEC (chronic)	208 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	446.7 mg/l Test organisms (species): Pimephales promelas Duration: '28 d'

12.2. Persistence and degradability

Formaldehyde 37%	
Persistence and degradability	Not rapidly degradable

Formaldehyde (50-00-0)	
Persistence and degradability	

Methanol ; Methyl alcohol (67-56-1)	
Persistence and degradability	

12.3. Bioaccumulative potential

Formaldehyde 37%	
Bioaccumulative potential	No additional information available

Methanol ; Methyl alcohol (67-56-1)	
Partition coefficient n-octanol/water (Log Kow)	-0.77 Source: HSDB, ChemIDplus

12.4. Mobility in soil

Formaldehyde 37%	
Mobility in soil	No additional information available

Methanol ; Methyl alcohol (67-56-1)	
Mobility in soil	2.75 Source: HSDB

12.5. Other adverse effects

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

SECTION 13: Disposal Considerations

13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Flammable vapours may accumulate in the container. Do not re-use empty containers.




Formaldehyde 37%

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
1198	1198	1198
14.2. UN Proper Shipping Name		
FORMALDEHYDE SOLUTION, FLAMMABLE	FORMALDEHYDE SOLUTION, FLAMMABLE	Formaldehyde solution, flammable
14.3. Transport hazard class(es)		
3 (8)	3 (8)	3 (8)
		
14.4. Packing group, if applicable		
III	III	III
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

14.6. Special precautions for user

SANS

Limited quantities (SANS)	: 5 L
Limited quantities (SANS)	: 5 L
Packagings, large packagings and IBCs Packing instructions (SANS)	: P001, IBC03
Portable tank and bulk containers instructions (SANS)	: T4
Portable tank and bulk container special provisions (SANS)	: TP1

IMDG

Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	: S-C - SPILLAGE SCHEDULE Charlie - FLAMMABLE CORROSIVE LIQUIDS
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW2
Flash point (IMDG)	: 32-60°C c.c.
Properties and observations (IMDG)	: Colourless liquids with a pungent odour. Flashpoint: 32-60°C c.c. Miscible with water. Irritating to skin, eyes and mucous membranes.

IATA

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y342
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 354
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 365
CAO max net quantity (IATA)	: 60L

Formaldehyde 37%

Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

Special provisions (IATA) : A180, A803
ERG code (IATA) : 3Ci

14.7. Transport in bulk according to IMO instructions

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

15.1.1. OCCUPATIONAL HEALTH AND SAFETY ACT, 1993

Prohibited Hazardous Chemical Agents

Not regulated

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

No additional information available

SECTION 16: Other information

Issue date : 25/11/2016
Revision date : 24/10/2024
Supersedes : 24/10/2024

Full text of H-statements:

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), South Africa (HCA)

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.