SECTION 1: Chemical product and company identification

Product identifier

Product form	: Mixture
Trade name	: HD313
Type of product	: Surface detergent/cleaning product, Disinfectant, Detergent Disinfectant
Product group	: Trade product

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

Use of the substance/mixture	: Cleaner Disinfectant

Supplier's details

Manufacturer
HD313 Cleaning Solutions (Pty) Ltd
3 Salamiender Street,
Dal Josaphat
Paarl, 7646
Western Cape - South Africa
T +27 73 178 6094
info@hd313.co.za - www.hd313.co.za

Emergency telephone number

Emergency number	: +27 84 403 5508/ +27 73 178 6094

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to the United Nations GHS

Flammable liquids, Category 4	H227
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Specific target organ toxicity — Repeated exposure, Category 2	H373

Full text of H statements : see section 16

Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS-ZA) :

Signal word (GHS-ZA)	: Danger
Hazardous ingredients	: Sodium metasilicate; Dodecylbenzenesulfonic acid; 2-butoxyethanol
Hazard statements (GHS-ZA)	: H227 - Combustible liquid H315 - Causes skin irritation. H318 - Causes serious eye damage. H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-ZA) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 - Do not breathe vapours, spray, mist.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER, a doctor.
P314 - Get medical attention, medical advice if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical attention, medical advice.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry extinguishing powder to extinguish.
P403 - Store in a well-ventilated place.
P501 - Dispose of contents and container to an approved waste disposal plant.

Other hazards

Adverse physicochemical, human health and environmental effects : May cause damage to organs through prolonged or repeated exposure,Causes skin irritation,Causes serious eye damage.

SECTION 3: Composition/information on ingredients

Substances

Not applicable

Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
2-butoxyethanol	(CAS-No.) 111-76-2 (EC-No.) 203-905-0	1 – 10	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT RE 2, H373 Aquatic Acute Not classified Aquatic Chronic Not classified
Dodecylbenzenesulfonic acid	(CAS-No.) 27176-87-0 (EC-No.) 248-289-4	≥ 1	Flam. Liq. Not classified Acute Tox. 5 (Dermal), H313 Skin Corr. 1, H314 STOT RE 2, H373 Aquatic Acute 2, H401
Sodium metasilicate	(CAS-No.) 6834-92-0 (EC-No.) 229-912-9	1 – 10	Acute Tox. 4 (Oral), H302 Acute Tox. Not classified (Dermal) Skin Corr. 1B, H314 STOT SE 3, H335 STOT RE Not classified Aquatic Acute Not classified
Sulphuric acid	(CAS-No.) 7664-93-9 (EC-No.) 231-639-5	< 0.1	Acute Tox. 5 (Oral), H303 Skin Corr. 1A, H314 Aquatic Acute Not classified Aquatic Chronic 3, H412

Full text of H-statements: see section 16

SECTION 4: First aid measures

Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Do not induce vomitting

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

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 : Call a poison center or a doctor if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid.

Hazardous decomposition products in case of : Toxic fumes may be released. fire

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

Personal precautions, protective equipment and emergency procedures

No additional information available

For non-emergency personnel

Emergency procedures **For emergency responders** : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

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

Environmental precautions

Avoid release to the environment.

Methods and material for containment and cleaning up

Methods for cleaning u : 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

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. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Conditions for safe storage, including any incompatibilities

Storage conditions : Store in the original container in a cool well ventilated place away from children and food stuff.

SECTION 8: Exposure controls/personal protection

Control parameters

Sulphuric acid (7664-93-9)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Sulphuric acid
OEL TWA (mg/m³)	1 mg/m³
Regulatory reference	Government Notice. R: 1179
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	Sulphuric acid
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	3 mg/m³
Regulatory reference	Government Notice No. R 904
2-butoxyethanol (111-76-2)	
South Africa - Occupational Exposure Limits (Control Limits)	
Local name	2-Butoxyethanol (EGBE) (Ethylene glycol monobutyl ether)
OEL TWA (mg/m³)	120 mg/m³

OEL TWA (ppm)	25 ppm
Remark	Sk
Regulatory reference	Government Notice. R: 1179
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	2-Butoxyethanol (Ethylene glycol monobutyl ether [EGBE])
OEL TWA (mg/m³)	120 mg/m³
OEL TWA (ppm)	25 ppm
Remark	Sk (Danger of cutaneous absorption)
Regulatory reference	Government Notice No. R 904

Appropriate engineering controls

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

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):**

Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: clear.
Colour	: Natural. Light gold.
Odour	: typical.
Odour threshold	: No data available
pH	: Undiluted - 11.3, 1 :5 Dilution – 10.2
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: 10 °C
Boiling point	: 95 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available

Flammability (solid, gas)	:	Not applicable
Vapour pressure	:	No data available
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	:	No data available
Relative gas density	:	No data available
Solubility	:	No data available
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 explosive limit (LEL)	:	No data available
Upper explosive limit (UEL)	:	No data available

Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

Conditions to avoid

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

Incompatible materials

No additional information available

Hazardous decomposition products

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

SECTION 11: Toxicological information

Information on toxicological effects

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

Sodium metasilicate (6834-92-0)	
LD50 oral rat	994.7 – 1530 mg/kg bodyweight ECHA
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 2.06 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
Dodecylbenzenesulfonic acid (27176-87-0)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	0.31 mg/l air Animal: rat, Animal sex: male
Sulphuric acid (7664-93-9)	
LD50 oral rat	2140 mg/kg bodyweight Animal: rat, 95% CL: 1540 - 2990
LC50 Inhalation - Rat	0.375 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
2-butoxyethanol (111-76-2)	
LD50 oral rat	1746 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1322 - 2301
LD50 oral	1414 mg/kg bodyweight Animal: guinea pig, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1020 - 1961
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	435 mg/kg bodyweight

Skin corrosion/irritation : Causes skin irritation.
pH: 10.9 – 11.4

Serious eye damage/irritation : Causes serious eye damage.
pH: 10.9 – 11.4

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through

	prolonged or repeated exposure.
Sodium metasilicate (6834-92-0)	
NOAEL (oral, rat, 90 days)	227 – 237 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90Day Oral Toxicity in Rodents)
Dodecylbenzenesulfonic acid (27176-87-0)	
LOAEL (oral, rat, 90 days)	200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
LOAEL (dermal, rat/rabbit, 90 days)	286 mg/kg bodyweight Animal: rat, Animal sex: male
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (dermal, rat/rabbit, 90 days)	< 286 mg/kg bodyweight Animal: rat, Animal sex: male
2-butoxyethanol (111-76-2)	
NOAEL (dermal, rat/rabbit, 90 days)	> 150 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Aspiration hazard : Not classified

SECTION 12: Ecological information

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, shortterm (acute) : Not classified

Hazardous to the aquatic environment, longterm (chronic) : Not classified

Sodium metasilicate (6834-92-0)	
LC50 fish 1	210 – 2320 mg/l
EC50 Daphnia 1	1700 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	207 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
Dodecylbenzenesulfonic acid (27176-87-0)	
EC50 Daphnia 1	5.88 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	65.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h algae (2)	21 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

Sulphuric acid (7664-93-9)	
EC50 Daphnia 1	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC (chronic)	0.15 mg/l Test organisms (species): other:Tanytarsus dissimilis
NOEC chronic fish	0.31 mg/l Test organisms (species): Salvelinus fontinalis

2-butoxyethanol (111-76-2)	
LC50 fish 1	1474 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 Daphnia 1	≈ 1800 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	911 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h algae (2)	1840 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '21 d'
Partition coefficient n-octanol/water (Log Pow)	0.81

Persistence and degradability

HD313	
Persistence and degradability	No additional information available

Bioaccumulative potential

HD313	
Bioaccumulative potential	No additional information available

2-butoxyethanol (111-76-2)	
Partition coefficient n-octanol/water (Log Pow)	0.81

Mobility in soil

HD313	
Mobility in soil	No additional information available

2-butoxyethanol (111-76-2)	
Partition coefficient n-octanol/water (Log Pow)	0.81

Other adverse effects

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

SECTION 13: Disposal considerations

Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
UN number		
Not regulated for transport		
Proper Shipping Name		
Not applicable	Not applicable	Not applicable
Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable
Packing group		

Not applicable	Not applicable	Not applicable
Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available		

Special precautions for user

- SANS

No data available

- IMDG

No data available

- IATA

No data available

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

Not applicable

SECTION 15: Regulatory information

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

Regulatory reference : SANS 10234:2019; SANS 11014:2010; SANS 10228:2012;SANS 10229:2010; SANS 10232(1,2,4), SANS 10231:2018; Occupational Health and Safety Act 85 of 1993; National Road Traffic Act 93 of 1996.

SECTION 16: Other information

Issue date : 29/09/2020
Revision date : 09/10/2020
Full text of H-statements:

H227	Combustible liquid
H302	Harmful if swallowed.
H303	May be harmful if swallowed
H311	Toxic in contact with skin.
H313	May be harmful in contact with skin
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects.

SDS ZA - NRCS

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.