

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

1.1. GHS product identifier

Product form	: Mixture
Trade name	: Dura - Roadmarking Solvent-based - Black
Type of product	: Coatings
Product code	: RMBLACK
Product group	: Trade product

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended uses and restrictions : Painting asphalt, concrete roads, curbstones and speed humps

1.4. Supplier's details

Distributor

Dura Paints (Pty) Ltd.
5 Wakefield Road; Founders View South.
P.O. Box 303
1610 Edenvale; Johannesburg – South Africa
T 011 452 5221
Contact: Lizel Rosemann

1.5. Emergency phone number

Emergency number : 079 494 2731 / 011 452 5221

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 (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2A	H319
Skin sensitisation, Category 1	H317
Germ cell mutagenicity, Category 1B	H340
Carcinogenicity, Category 1A	H350
Reproductive toxicity, Category 1B	H360
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity – Repeated exposure, Category 2	H373
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : Highly flammable liquid and vapour,May cause cancer,May cause genetic defects,May damage fertility or the unborn child,May cause damage to organs through prolonged or repeated exposure,May cause drowsiness or dizziness,Harmful if inhaled,Causes skin irritation,May cause an allergic skin reaction,Causes serious eye irritation,May be fatal if swallowed and enters airways,Harmful to aquatic life with long lasting effects.

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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

: Solvent naphtha (petroleum), light arom.; (Z)-octadec-9-en-1-aminium salts of tall-oil fatty acids; Fatty acids, C18-unsatd., trimers, compds. with oleylamine; N-hexane; Solvent naphtha (petroleum), light alph.; benzene; Toluene; Calcium carbonate; Methyl Ethyl Ketoxime; 1-methyl-2-pyrrolidone

Hazard statements (GHS ZA)

: H225 - Highly flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H340 - May cause genetic defects (Dermal, Inhalation, Oral)
H350 - May cause cancer (Dermal, Inhalation, Oral)
H360 - May damage fertility. Suspected of damaging the unborn child. (Dermal, Inhalation, Oral)
H373 - May cause damage to organs (central nervous system) through prolonged or repeated exposure (Inhalation)
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS ZA)

: P102 - Keep out of reach of children.
P103 - Read carefully and follow all instructions.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P261 - Avoid breathing fume, spray, vapours.
P273 - Avoid release to the environment.
P280 - Wear eye protection, protective gloves, protective clothing.
P331 - Do NOT induce vomiting.
P501 - Dispose of container to Recycling is preferred to disposal or incineration.

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

3.2. Mixture

Name	Product identifier	%	Classification according to the United Nations GHS
Xylene	CAS-No.: 1330-20-7	9 – 28.0125	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Acute Tox. Not classified (Inhalation:dust,mist) Skin Irrit. 2, H315 STOT RE Not classified Aquatic Chronic Not classified

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Name	Product identifier	%	Classification according to the United Nations GHS
Toluene	CAS-No.: 108-88-3	9 – 28	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
Calcium carbonate	CAS-No.: 471-34-1	19 – 22.8	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT RE Not classified
Solvent naphtha (petroleum), light aliph.	CAS-No.: 64742-89-8	3 – 14	Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	-	5 – 8.75	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 4, H413
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	CAS-No.: 64742-48-9	5 – 7.5	Flam. Liq. 3, H226 Asp. Tox. 1, H304
N-hexane	CAS-No.: 110-54-3	0.3 – 3.2	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Solvent naphtha (petroleum), light arom.	CAS-No.: 64742-95-6	0.21 – 0.5	Flam. Liq. 3, H226 Muta. 1B, H340 Carc. 1B, H350 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Fatty acids, C18-unsatd., trimers, compds. with oleylamine	CAS-No.: 147900-93-4	0.21 – 0.5	Acute Tox. 4 (Oral), H302 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 2, H411
benzene	CAS-No.: 71-43-2	0.03 – 0.4	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304

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Name	Product identifier	%	Classification according to the United Nations GHS
Methyl Ethyl Ketoxime	CAS-No.: 96-29-7	0.0995 – 0.2985	Flam. Liq. 4, H227 Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Acute Tox. 3 (Inhalation:vapour), H331 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 1B, H350 STOT SE 1, H370 STOT SE 3, H336 STOT RE 1, H372 Aquatic Chronic 2, H411
(Z)-octadec-9-en-1-aminium salts of tall-oil fatty acids	CAS-No.: 85711-55-3	0.14 – 0.25	Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT RE 2, H373
1-methyl-2-pyrrolidone	CAS-No.: 872-50-4	0.048 – 0.24	Flam. Liq. 4, H227 Acute Tox. 5 (Oral), H303 Acute Tox. Not classified (Dermal) Acute Tox. Not classified (Inhalation:dust,mist) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 1B, H360 STOT SE 3, H335 STOT RE Not classified Aquatic Acute Not classified

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. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash 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. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms/effect, acute and delayed

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Risk of lung oedema.

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.
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5.2. Specific hazards arising from the chemical

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

5.3. Special protective actions for fire-fighters

- 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

6.1.1. For non-emergency personnel

- Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. 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".

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and materials 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 : 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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Xylene (1330-20-7)	
South Africa - Occupational Exposure Limits (Restricted Limits)	
Local name	Xylene, o-, m-, p- or mixed isomers
OEL eight hour TWA [ppm]	300 ppm
RHCA - STEL/C [ppm]	200 ppm
Remark	SKIN (danger of cutaneous absorption)
Regulatory reference	Government Notice No. R. 280, 2021
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	Xylene, o-, m-, p- or mixed isomers
OEL TWA	218 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	435 mg/m ³
OEL STEL [ppm]	100 ppm
Remark	Sk (Danger of cutaneous absorption)
Regulatory reference	Government Notice No. R 904
South Africa - Biological limit values	
Local name	Xylenes
BEI	1.5 g/g creatinine Parameter: Methylhippuric acids - Medium: urine - Sampling time: End of shift
Regulatory reference	Government Notice No. R. 280, 2021
N-hexane (110-54-3)	
South Africa - Occupational Exposure Limits (Restricted Limits)	
Local name	n-Hexane
RHCA - STEL/C [ppm]	100 ppm
Remark	SKIN (danger of cutaneous absorption)
Regulatory reference	Government Notice No. R. 280, 2021
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	n-Hexane
OEL TWA	70 mg/m ³
OEL TWA [ppm]	20 ppm
Regulatory reference	Government Notice No. R 904
South Africa - Biological limit values	
Local name	n-Hexane
BEI	0.4 mg/l Parameter: 2,5-Hexanedione - Medium: urine - Sampling time: End of shift at end of workweek
Regulatory reference	Government Notice No. R. 280, 2021
benzene (71-43-2)	
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	Benzene
OEL TWA	3 mg/m ³
OEL TWA [ppm]	1 ppm

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benzene (71-43-2)	
Regulatory reference	Government Notice No. R 904
Toluene (108-88-3)	
South Africa - Occupational Exposure Limits (Restricted Limits)	
Local name	Toluene
OEL eight hour TWA [ppm]	150 ppm
OEL eight hour TWA	560 mg/m ³
RHCA - STEL/C [ppm]	40 ppm 50 ppm
RHCA - STEL/C	188 mg/m ³
Remark	SKIN (danger of cutaneous absorption) Sk
Regulatory reference	Government Notice No. R. 280, 2021 Government Notice. R: 1179
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	Toluene
OEL TWA	188 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	560 mg/m ³
OEL STEL [ppm]	150 ppm
Remark	Sk (Danger of cutaneous absorption)
Regulatory reference	Government Notice No. R 904
South Africa - Biological limit values	
Local name	Toluene
BEI	0.02 mg/l Parameter: Toluene - Medium: blood - Sampling time: Prior to last shift of workweek 0.03 mg/l Parameter: Toluene - Medium: urine - Sampling time: End of shift 0.3 mg/g creatinine Parameter: o-Cresol - Medium: urine - Sampling time: End of shift - Notations: B (background)
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 inadequate ventilation] wear respiratory protection.
Personal protective equipment symbol(s)



8.4. Exposure limit values for the other components

No additional information available

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SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Semi Gloss.
Colour	: Black.
Odour	: Aromatic solvent like odour.
Odour threshold	: No data available
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
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability	: Highly flammable liquid and vapour.
Vapour pressure	: No data available
Vapour pressure at 50°C	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: > 1.3 – < 1.35
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	: ≤ 0.74 mm ² /s
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	: Semi Gloss.

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.

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

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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) : Harmful if inhaled.

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ATE ZA (dust, mist)	2.952 mg/l/4h
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Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (64742-48-9)

LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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LD50 dermal rabbit	≥ 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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Hydrocarbons, C11-C12, isoalkanes, <2% aromatics

LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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LD50 dermal rabbit	≥ 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
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Xylene (1330-20-7)

LD50 oral rat	≈ 3523 mg/kg bodyweight
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LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male, Remarks on results: other:
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LC50 Inhalation - Rat	≈ 27.124 mg/l Source: ECHA
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Solvent naphtha (petroleum), light arom. (64742-95-6)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
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(Z)-octadec-9-en-1-aminium salts of tall-oil fatty acids (85711-55-3)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity), Guideline: other., Remarks on results: other:
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Solvent naphtha (petroleum), light aliph. (64742-89-8)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
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LC50 Inhalation - Rat	≈ 5.61 mg/l Source: ECHA
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Toluene (108-88-3)

LD50 oral rat	5580 mg/kg Source: ECHA
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LD50 dermal rabbit	> 5000 mg/kg Source: ECHA
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LC50 Inhalation - Rat (Vapours)	> 20 mg/l Source: ECHA
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Calcium carbonate (471-34-1)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
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Calcium carbonate (471-34-1)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LC50 Inhalation - Rat	> 3 mg/l/4h Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
Methyl Ethyl Ketoxime (96-29-7)	
LD50 dermal rabbit	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 4.83 mg/l/4h Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
1-methyl-2-pyrrolidone (872-50-4)	
LD50 oral rat	4150 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 3100 - 5560
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.1 mg/l/4h Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: May cause genetic defects (Dermal, Inhalation, Oral).
Carcinogenicity	: May cause cancer (Dermal, Inhalation, Oral).
1-methyl-2-pyrrolidone (872-50-4)	
NOAEL (chronic, oral, animal/male, 2 years)	≈ 89 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:
NOAEL (chronic, oral, animal/female, 2 years)	≈ 221 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:
Reproductive toxicity	: May damage fertility. Suspected of damaging the unborn child. (Dermal, Inhalation, Oral).
STOT-single exposure	: May cause drowsiness or dizziness.
Solvent naphtha (petroleum), light arom. (64742-95-6)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.
N-hexane (110-54-3)	
STOT-single exposure	May cause drowsiness or dizziness.
Toluene (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.
Methyl Ethyl Ketoxime (96-29-7)	
STOT-single exposure	Causes damage to organs. May cause drowsiness or dizziness.
1-methyl-2-pyrrolidone (872-50-4)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: May cause damage to organs (central nervous system) through prolonged or repeated exposure (Inhalation).
Xylene (1330-20-7)	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)

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(Z)-octadec-9-en-1-aminium salts of tall-oil fatty acids (85711-55-3)	
NOAEL (oral, rat, 90 days)	7.1 – 21.9 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Fatty acids, C18-unsatd., trimers, compds. with oleylamine (147900-93-4)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
N-hexane (110-54-3)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Solvent naphtha (petroleum), light aliph. (64742-89-8)	
LOAEC (inhalation, rat, vapour, 90 days)	≈ 1.402 mg/l
NOAEC (inhalation, rat, gas, 90 days)	≈ 1402 mg/l Specimen: Rat - Source: ECHA
benzene (71-43-2)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Toluene (108-88-3)	
LOAEL (oral, rat, 90 days)	≈ 1250 mg/kg bodyweight/day Source: ECHA
LOAEC (inhalation, rat, gas, 90 days)	≈ 2.261 mg/l Source: ECHA
NOAEL (oral, rat, 90 days)	≈ 625 mg/kg bodyweight/day Rat
NOAEC (inhalation, rat, gas, 90 days)	1.131 – 2.355 mg/l Air, Source: ECHA
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Calcium carbonate (471-34-1)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	≥ 0.212 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
Methyl Ethyl Ketoxime (96-29-7)	
LOAEL (oral, rat, 90 days)	40 mg/kg bodyweight Animal: rat, Guideline: other:
NOAEC (inhalation, rat, vapour, 90 days)	0.09 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
NOAEL (subchronic, oral, animal/male, 90 days)	110 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
1-methyl-2-pyrrolidone (872-50-4)	
LOAEL (dermal, rat/rabbit, 90 days)	1653 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEL (dermal, rat/rabbit, 90 days)	826 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
Aspiration hazard : May be fatal if swallowed and enters airways.	
Dura - Roadmarking Solvent-based - Black	
Viscosity, kinematic	≤ 0.74 mm ² /s

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

Hydrocarbons, C11-C12, isoalkanes, <2% aromatics

NOEC (chronic)	0.011 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
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Xylene (1330-20-7)

EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
LOEC (chronic)	3.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

(Z)-octadec-9-en-1-aminium salts of tall-oil fatty acids (85711-55-3)

LOEC (chronic)	4.6 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
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Solvent naphtha (petroleum), light aliph. (64742-89-8)

EC50 - Crustacea [1]	≈ 4.5 mg/l EL50 value Source: ECHA
NOEC chronic fish	≈ 2.6 mg/l

Toluene (108-88-3)

LC50 - Fish [1]	5.5 mg/l Source: ECHA
EC50 - Crustacea [1]	3.78 mg/l Source: ECHA
NOEC chronic crustacea	≈ 0.74 mg/l Source: ECHA

Calcium carbonate (471-34-1)

EC50 72h - Algae [1]	> 14 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
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Methyl Ethyl Ketoxime (96-29-7)

LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustacea [1]	≈ 201 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	≈ 11.8 mg/l Test organisms (species): Scenedesmus capricornutum
EC50 72h - Algae [2]	≈ 6.09 mg/l Test organisms (species): Scenedesmus capricornutum
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

1-methyl-2-pyrrolidone (872-50-4)

LC50 - Fish [1]	> 500 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 72h - Algae [1]	600.5 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	672.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	12.5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

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12.2. Persistence and degradability

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Persistence and degradability No additional information available

Methyl Ethyl Ketoxime (96-29-7)

Not rapidly degradable

12.3. Bioaccumulative potential

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Bioaccumulative potential No additional information available

N-hexane (110-54-3)

Partition coefficient n-octanol/water (Log Kow) ≈ 4 20 °C and pH 7 - Source: ECHA

benzene (71-43-2)

Partition coefficient n-octanol/water (Log Kow) ≈ 2.13 Temperature: 20°C Source: ECHA

Toluene (108-88-3)

Partition coefficient n-octanol/water (Log Kow) 2.73 Source: HSDB

12.4. Mobility in soil

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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		
1268	1268	1268
14.2. UN Proper Shipping Name		
PETROLEUM PRODUCTS, N.O.S.	PETROLEUM PRODUCTS, N.O.S.	Petroleum products, n.o.s.
14.3. Transport hazard class(es)		
3	3	3
		

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SANS	IMDG	IATA
14.4. Packing group, if applicable		
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
Portable tank and bulk container special provisions (SANS)	: TP1, TP29

IMDG

Special provisions (IMDG)	: 223, 955
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-E - SPILLAGE SCHEDULE Echo - FLAMMABLE LIQUIDS, FLOATING ON WATER
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
ERG code (IATA)	: 3L

14.7. Transport in bulk according to IMO instructions

Not applicable

SECTION 15: Regulatory information

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

No additional information available

SECTION 16: Other information

Issue date	: 27/01/2023
Revision date	: 02/08/2023

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

Supersedes

: 27/01/2023

Section	Changed item	Change	Comments
	Supersedes	Added	
	Hazard statements (GHS ZA)	Modified	
	Precautionary statements (GHS ZA)	Modified	
	Flammability	Modified	
	Revision date	Added	
	Hazard pictograms (GHS ZA)	Modified	
2.1	Adverse physicochemical, human health and environmental effects	Modified	
2.1	Classification (GHS UN)	Modified	
4	First-aid measures after skin contact	Modified	
5.2	Fire hazard	Added	
6	Emergency procedures	Modified	
7.1	Precautions for safe handling	Modified	
7.2	Storage conditions	Modified	
7.2	Technical measures	Added	
10	Reactivity	Modified	
10	Conditions to avoid	Modified	
13	Additional information	Added	

Full text of H-statements:

H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H227	Combustible liquid
H301	Toxic if swallowed
H302	Harmful if swallowed
H303	May be harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H313	May be harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects

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Full text of H-statements:	
H350	May cause cancer
H360	May damage fertility or the unborn child
H361	Suspected of damaging fertility or the unborn child
H370	Causes damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

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.