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

- · 1.1 Product identifier
- · Trade name: GRAPHITE SPRAY
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Life cycle stages IS Use at industrial Sites
- · Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- · Product category PC24 Lubricants, greases, release products
- · Technical function Lubricating agent
- · Application of the substance / the mixture Coating compound/ Surface coating/ paint
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Spanjaard (Pty) Ltd.

748-750 Fifth Street, Wynberg

Sandton, SOUTH AFRICA, 2090

Tel: +27 11 386 7100

· Further information obtainable from:

Clinton Palmer - Operations Executive

clinton@spanjaard.biz

· 1.4 Emergency telephone number: NCEC: +44 1865 407333

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS08 health hazard

Carc. 2 H351 Suspected of causing cancer.

Repr. 1B H360 May damage fertility or the unborn child.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- · Hazard pictograms GHS02, GHS07, GHS08
- · Signal word Danger
- · Hazard-determining components of labelling:

dichloromethane

toluene

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

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· Precautionary statements

- If medical advice is needed, have product container or label at hand. P101
- 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.
- P211 Do not spray on an open flame or other ignition source.
- P251 Do not pierce or burn, even after use.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- Store locked up.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- Dispose of contents/container in accordance with local/regional/national/international regulations.
- · Additional information:

Buildup of explosive mixtures possible without sufficient ventilation.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0 RTECS: EJ 4200000	butane, pure Flam. Gas 1A, H220 Acute Tox. 3, H331 Press. Gas (Comp.), H280	25-35%
CAS: 75-09-2 EINECS: 200-838-9 Index number: 602-004-00-3 RTECS: PA 8050000	dichloromethane Carc. 2, H351 Acute Tox. 4, H302	25-35%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 RTECS: TX 2275000	propane Flam. Gas 1A, H220 Press. Gas (Comp.), H280	5-10%
CAS: 108-88-3 EINECS: 203-625-9 Index number: 601-021-00-3 RTECS: XS 5250000	toluene Flam. Liq. 2, H225 Repr. 1B, H360; STOT RE 2, H373; Asp. Tox. 1, H304 Skin Irrit. 2, H315; STOT SE 3, H336	5-<10%
CAS: 7440-44-0 EINECS: 231-153-3 RTECS: FF 5250100	graphite Flam. Sol. 1, H228	1-5%
CAS: 1330-20-7		1-5%

Additional information: For the wording of the listed hazard phrases refer to section 16.

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SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Open and handle receptacle with care.
- · Information about fire and explosion protection:

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Keep respiratory protective device available.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings with pressurised containers.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep container tightly sealed.

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· 7.3 Specific end use(s) No further relevant information available.

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SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Additional information about design of technical facilities: No further data; see item 7.

	it values that require monitoring at the workplace:
106-97-8 butane, pu	
WEL (Great Britain)	Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
AGW (Germany)	Long-term value: 2400 mg/m^3 , 1000 ppm 4(II);DFG
75-09-2 dichloromet	hane
IOELV (EU)	Short-term value: 706 mg/m³, 200 ppm Long-term value: 353 mg/m³, 100 ppm Skin
WEL (Great Britain)	Short-term value: 706 mg/m^3 , 200 ppm Long-term value: 353 mg/m^3 , 100 ppm BMGV, Sk
AGW (Germany)	Long-term value: 180 mg/m^3 , 50 ppm $2(II);DFG, H, Z$
74-98-6 propane	
AGW (Germany)	Long-term value: 1800 mg/m³, 1000 ppm 4(II);DFG
108-88-3 toluene	
IOELV (EU)	Short-term value: 384 mg/m³, 100 ppm Long-term value: 192 mg/m³, 50 ppm Skin
WEL (Great Britain)	Short-term value: 384 mg/m³, 100 ppm Long-term value: 191 mg/m³, 50 ppm Sk
AGW (Germany)	Long-term value: 190 mg/m³, 50 ppm 2(II);DFG, EU, H, Y
1330-20-7 xylene	
IOELV (EU) Short-term value: 442 mg/m³, 100 ppm Long-term value: 221 mg/m³, 50 ppm Skin	
WEL (Great Britain) Short-term value: 441 mg/m³, 100 ppm Long-term value: 220 mg/m³, 50 ppm Sk; BMGV	
AGW (Germany)	Long-term value: 220 mg/m³, 50 ppm 2(II);DFG, EU, H

Ingredients with biological limit values:

75-09-2 dichloromethane

BMGV (Great Britain) 30 ppm

Medium: end-tidal breath Sampling time: post shift Parameter: carbon monoxide

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	(Contd. of pa
BGW (Germany)	500 µg/L Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: unmittelbar nach Exposition Parameter: Dichlormethan
108-88-3 toluene	
BGW (Germany)	600 µg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: unmittelbar nach Exposition Parameter: Toluol
	1.5 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende, bei Langzeitexposition: a Schichtende nach mehreren vorangegangenen Schichten Parameter: o-Kresol (nach Hydrolyse)
	75 µg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Toluol
1330-20-7 xylene	
BMGV (Great Britain)	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
BGW (Germany)	1.5 mg/l Untersuchungsmaterial: Vollblut Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Xylol
	2000 mg/L Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Methylhippur-(Tolur-)Säure (alle Isomere)

- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

- · Respiratory protection: Suitable respiratory protective device recommended.
- Protection of hands:

Solvent resistant gloves



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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Not required.

General Information	chemical properties	
Appearance: Form:	Communicated liquidical case	
rorm: Colour:	Compressed liquefied gas Black	
Odour:	Solvent-like	
Odour threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/freezing point:	Undetermined.	
Initial boiling point and boiling range	∷ 0 °C	
Flash point:	-60 °C	
Flammability (solid, gas):	Not applicable.	
Ignition temperature:	365 °C	
Decomposition temperature:	Not determined.	
Auto-ignition temperature:	Product is not selfigniting.	
Explosive properties:	Not determined.	
Explosion limits:		
Lower:	1.5 Vol %	
Upper:	22 Vol %	
Vapour pressure at 20 °C:	2,100 hPa	
Density at 20 °C:	0.48 g/cm^3	
Relative density	Not determined.	
Vapour density	Not determined.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
water:	Not miscible or difficult to mix.	
Partition coefficient: n-octanol/water:	Not determined.	
Viscosity: Dynamic:	Not determined.	

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		(Contd. of page 6)
Kinematic:	Not determined.	
· Solvent content: Organic solvents: VOC (EC)	81.0 % 90,00 %	
Solids content:	10.0 %	
· 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC5	· LD/LC50 values relevant for classification:		
1330-20	-7 xyle	ne	
Oral	<i>LD50</i>	4300 mg/kg (rat)	
Dermal	<i>LD50</i>	2000 mg/kg (rabbit)	

- · Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Additional toxicological information:
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity

Suspected of causing cancer.

· Reproductive toxicity

May damage fertility or the unborn child.

- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.

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- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

	SECTI	ON 14:	Transp	ort inf	ormati	on
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· 14.1 UN-Number

· ADR, IMDG, IATA UN1950

· 14.2 UN proper shipping name

· ADR 1950 AEROSOLS
· IMDG 1950 AEROSOLS

· IATA AEROSOLS, flammable

- · 14.3 Transport hazard class(es)
- $\cdot ADR$



· Class
 · Label
 2 5F Gases.
 2.1

· IMDG



· Class 2.1 Gases. · Label 2.1

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IATA	
Class	2.1 Gases.
Label	2.1
14.4 Packing group	-
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	
Marine pollutant:	Yes
14.6 Special precautions for user	Warning: Gases.
Hazard identification number (Kemler code):	-
EMS Number:	F- D , S - U
Stowage Code	SW1 Protected from sources of heat.
	SW22 For AEROSOLS with a maximum capacity of 1 lit
	Category A. For AEROSOLS with a capacity above 1 lit
	Category B. For WASTE AEROSOLS: Category C, Clear
	living quarters.
Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre:
	Segregation as for class 9. Stow "separated from" class except for division 1.4.
	For AEROSOLS with a capacity above 1 litre:
	Segregation as for the appropriate subdivision of class 2.
	For WASTE AEROSOLS:
	Segregation as for the appropriate subdivision of class 2.
14.7 Transport in bulk according to Annex II	of
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
· ADR	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity
Transport category	2
Tunnel restriction code	D
· IMDG	
Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E0
	Not permitted as Excepted Quantity

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms GHS02, GHS07, GHS08

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· Signal word Danger

· Hazard-determining components of labelling:

dichloromethane

toluene

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

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.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

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

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Directive 2012/18/EU
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 48, 59
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H228 Flammable solid.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

- · Department issuing SDS: Technical Department
- · Contact: Mr Clinton Palmer
- · Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1A: Flammable gases - Category 1A

Aerosol 1: Aerosols - Category 1

Press. Gas (Comp.): Gases under pressure - Compressed gas

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3 Flam. Sol. 1: Flammable solids – Category 1

Acute Tox. 4: Acute toxicity - Category 4 Acute Tox. 3: Acute toxicity - Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2 Carc. 2: Carcinogenicity – Category 2

Repr. 1B: Reproductive toxicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

^{* *} Data compared to the previous version altered.