

## Safety data sheet according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

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

- **1.1 Product identifier**
- **Trade name:** **K2 VULCAN**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Lubricant
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Melle Sp. z o. o.  
Stary Staw 9  
63-400 OSTRÓW WLKP.  
POLAND
- **Further information obtainable from:**  
Product safety department.  
zakupy@inter-global.com.pl
- **1.4 Emergency telephone number:** During normal opening times: 0048/62 737 88 00

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is not classified according to the CLP regulation



GHS02 flame

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



GHS07

STOT SE 3 H336 May cause drowsiness or dizziness.

- **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

- **Signal word** Danger
- **Hazard-determining components of labelling:**  
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
- **Hazard statements**  
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.  
H336 May cause drowsiness or dizziness.
- **Precautionary statements**  
P102 Keep out of reach of children.  
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.

(Contd. on page 2)

## Safety data sheet

### according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

**Trade name: K2 VULCAN**

(Contd. of page 1)

- P260 Do not breathe spray.  
 P271 Use only outdoors or in a well-ventilated area.  
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.  
 P501 Dispose of contents/container to a waste container.
- **Additional information:**  
 EUH066 Repeated exposure may cause skin dryness or cracking.  
 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 Mixtures**
- **Description:** Mixture: consisting of the following components.

- **Dangerous components:**

EC number: 919-857-5	Hydocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics ⚠ Asp. Tox. 1, H304; ⚠ STOT SE 3, H336	<50%
CAS: 106-97-8 EINECS: 203-448-7	butane, pure ⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	<20%
CAS: 74-98-6 EINECS: 200-827-9	propane ⚠ Flam. Gas 1A, H220; Press. Gas (Comp.), H280	<15%
CAS: 64742-47-8 EINECS: 265-149-8	Distillates (petroleum), hydrotreated light ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	<10%
CAS: 108-94-1 EINECS: 203-631-1	cyclohexanone ⚠ Flam. Liq. 3, H226; ⚠ Acute Tox. 3, H311; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	<1%

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

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
 Take affected persons out into the fresh air.  
 Personal protection for the First Aider.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **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.

(Contd. on page 3)

## Safety data sheet

### according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

Trade name: K2 VULCAN

(Contd. of page 2)

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **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.
- **Additional information** Cool endangered receptacles with water spray.

### 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:**  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **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**  
Ensure good ventilation/exhaustion at the workplace.  
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.  
Protect against electrostatic charges.  
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:**  
Store in a cool location.  
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.  
Do not seal receptacle gas tight.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

IE

(Contd. on page 4)

## Safety data sheet

### according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

**Trade name: K2 VULCAN**

(Contd. of page 3)

### SECTION 8: Exposure controls/personal protection

#### · 8.1 Control parameters

##### · Ingredients with limit values that require monitoring at the workplace:

##### 106-97-8 butane, pure

OEL Short-term value: 1000 ppm

##### 74-98-6 propane

OEL Asphx

##### 108-94-1 cyclohexanone

OEL Short-term value: 81.6 mg/m<sup>3</sup>, 20 ppm  
 Long-term value: 40.8 mg/m<sup>3</sup>, 10 ppm  
 Skin, IOELV

· **Additional information:** The lists valid during the making were used as basis.

#### · 8.2 Exposure controls

· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Hand protection**

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

· **General Information**

· **Physical state**

Aerosol

· **Colour:**

Colourless

(Contd. on page 5)

## Safety data sheet

according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

**Trade name: K2 VULCAN**

(Contd. of page 4)

· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Boiling point or initial boiling point and boiling range</b>	Not applicable, as aerosol.
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Flash point:</b>	Not applicable, as aerosol.
· <b>Decomposition temperature:</b>	Not determined.
· <b>pH</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not determined.
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Soluble.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density and/or relative density</b>	
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Particle characteristics</b>	See section 3.

**· 9.2 Other information**

· <b>Appearance:</b>	
· <b>Form:</b>	Aerosol
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not applicable.

**· Information with regard to physical hazard classes**

· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Extremely flammable aerosol. Pressurised container: May burst if heated.
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void

(Contd. on page 6)

## Safety data sheet

according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

**Trade name: K2 VULCAN**

(Contd. of page 5)

- |                                  |      |
|----------------------------------|------|
| · <b>Corrosive to metals</b>     | Void |
| · <b>Desensitised explosives</b> | Void |

### 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 hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

#### ATE (Acute Toxicity Estimates)

Dermal	LD50	130,391 mg/kg (rabbit)
--------	------	------------------------

#### Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>5,000 mg/kg (rabbit) (OECD 402)

#### 106-97-8 butane, pure

Inhalative	LC50/4 h	658 mg/l (rat)
------------	----------	----------------

#### 108-94-1 cyclohexanone

Oral	LD50	1,535 mg/kg (rat)
Dermal	LD50	948 mg/kg (rabbit)
Inhalative	LC50/4 h	8,000 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **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.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** May cause drowsiness or dizziness.
- **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.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.
------------------------------------

(Contd. on page 7)

## Safety data sheet

according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

Trade name: K2 VULCAN

(Contd. of page 6)


### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** The product is biodegradable. Degree of biodegradation > 70%
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
- The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
- Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 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.

### SECTION 14: Transport information

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN number or ID number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                                    | <p style="text-align: center;">UN1950</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | <p style="text-align: center;">1950 AEROSOLS<br/>AEROSOLS<br/>AEROSOLS, flammable</p>  |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR</b></li> </ul>  | <div style="text-align: center;">  </div> |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>  | <p style="text-align: center;">2 5F Gases.<br/>2.1</p>   |

(Contd. on page 8)



## Safety data sheet

according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

**Trade name: K2 VULCAN**

(Contd. of page 7)

· **IMDG, IATA**

- **Class** 2.1 Gases.
- **Label** 2.1

- **14.4 Packing group**
- **ADR, IMDG, IATA** Void

- **14.5 Environmental hazards:**
- **Marine pollutant:** No

- **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 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
- **Segregation Code** SG69 For AEROSOLS with a maximum capacity of 1 litre:  
Segregation as for class 9. Stow "separated from" class 1 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 Maritime transport in bulk according to IMO instruments** 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

- **UN "Model Regulation":** UN 1950 AEROSOLS, 2.1

IE

(Contd. on page 9)



## Safety data sheet

### according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

Trade name: K2 VULCAN

(Contd. of page 8)

### SECTION 15: Regulatory information

#### · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P3a FLAMMABLE AEROSOLS
- 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

#### · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

#### · REGULATION (EU) 2019/1148

#### · Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

#### · Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

#### · Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

#### · Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

#### · National regulations:

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

2. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Local regulations.

#### · 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.
- H226 Flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H311 Toxic in contact with skin.

(Contd. on page 10)

## Safety data sheet

### according to 1907/2006/EC, Article 31 and 2020/878/EU

Printing date 17.12.2024

Version number 5 (replaces version 4)

Revision: 17.12.2024

**Trade name: K2 VULCAN**

(Contd. of page 9)

*H315 Causes skin irritation.**H332 Harmful if inhaled.**H336 May cause drowsiness or dizziness.**H411 Toxic to aquatic life with long lasting effects.***· Classification according to Regulation (EC) No 1272/2008***The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.***· Date of previous version: 13.05.2021****· Version number of previous version: 4****· 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**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)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**ATE: Acute toxicity estimate values**Flam. Gas 1A: Flammable gases – Category 1A**Aerosol 1: Aerosols – Category 1**Press. Gas (Comp.): Gases under pressure – Compressed gas**Flam. Liq. 3: Flammable liquids – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Acute Tox. 3: Acute toxicity – Category 3**Skin Irrit. 2: Skin corrosion/irritation – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**Asp. Tox. 1: Aspiration hazard – Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*