

Kryonaut Extreme

Revision date: 04.07.2024

Product code: TG-004

Page 1 of 7

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product Identifier**

Kryonaut Extreme

Further trade names

Article no:

TG-KE-002-R (2ml)

TG-KE-090-R (9ml)

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Thermal compound application

Uses advised against

Only use for the intended purpose.

1.3. Details of the supplier of the safety data sheet

Company name: Thermal Grizzly Holding GmbH

Street: Gewerbestraße 39

Place: D-16540 Hohen Neuendorf

Telephone: +49-40-53278850

Telefax: +49-321-21134793

E-mail: support@thermal-grizzly.com

Internet: http://thermal-grizzly.com/

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service.

1.4. Emergency number:**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements**2.3. Other hazards**

The components in this mixture do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients**3.1. Mixtures****Chemical characterization**

The product is composed of the ingredients listed below and other non-hazarduous additives.

Hazardous components

| CAS-No. | Chemical Name | Quantity in % | | |
|------------|-----------------|---------------|-----------|-------|
| | EC-No. | Index-No. | REACH-No. | |
| | GHS-Einstufung | | | |
| 1344-28-1 | aluminium oxide | | | 59-71 |
| | 215-691-6 | | | |
| 63148-58-3 | silicone oil | | | 20-30 |
| | 613-153-9 | | | |
| 1314-13-2 | zinc oxide | | | 5-15 |
| | 215-222-5 | | | |

Kryonaut Extreme

Revision date: 04.07.2024

Product code: TG-004

Page 2 of 7

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection!

Remove persons from danger area and lie them down. Never orally infuse something to an unconscious person. No special first aid measures necessary. A vomiting, supine person must be brought into recovery position.

After inhalation

Remove casualty to fresh air and keep warm and at rest. In case of doubt see doctor. If unconscious place in recovery position and seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin irritation, consult a physician.

After contact with eyes

IF IN EYES: 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.

After ingestion

Rinse mouth, spit liquid again. Do NOT induce vomiting. Let water be drunken in little sips (dilution effect). Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No known symptoms to date.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂). Extinguishing powder. Water spray. Fight larger fires with water spray jet or alcohol-resistant foam.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Heating causes rise in pressure with risk of bursting.

In case of fire may be liberated: Carbon monoxide. Carbon dioxide.

5.3. Advice for firefighters

Co-ordinate fire-fighting measures to the fire surroundings. Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Co-ordinate fire-fighting measures to the fire surroundings. Suppress gases/vapours/mists with water spray jet. Use water spray jet to protect personnel and to cool endangered containers. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Keep away from sources of ignition - No smoking.

Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

Kryonaut Extreme

Revision date: 04.07.2024

Product code: TG-004

Page 3 of 7

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7

Personal precautions: refer to section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Personal precautions: refer to section 8 Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used.

Provide adequate ventilation, especially in confined areas.

Further information on handling

Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Store only in original container. Keep container tightly closed in a cool, well-ventilated place. Keep locked up and out of the reach of children.

Hints on joint storage

Keep away from food, drink and animal feeding stuffs.

Further information on storage conditions

Protect from sunlight and heat sources. Avoid ignition sources.

7.3. Specific end use(s)

For cleaning adhesive residues (PU foam) from tools.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)****Additional advice on limit values**

To date, no national critical limit values exist.

8.2. Exposure controls**Protective and hygiene measures**

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink. Avoid skin, eye and clothing contact. After contact with skin, wash immediately with plenty of water and soap or a suitable cleaning agent.

Eye/face protection

Tightly fitting safety glasses with side shields.

Hand protection

Protect skin by using skin protective cream. Wear suitable gloves.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Kryonaut Extreme

Revision date: 04.07.2024

Product code: TG-004

Page 4 of 7

Recommended material: Butyl rubber.
Thickness of glove material: >=0,5 mm.
Breakthrough time : <480 min

Skin protection

protection suit

Respiratory protection

Use protective filter mask in case of short-term and low exposure; in case of intense or longer exposure, use respiratory protection device operating independently from circulating air.

Recommended filtering device for short-term use: like: EN 14387, Filter type AX

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | | |
|-----------------|-------------------------|---------|
| Physical state: | paste-like | |
| Colour: | grey | |
| Odour: | slightly characteristic | |
| pH-Value: | | 7,0-7,3 |

Changes in the physical state

| | |
|--|-------------------|
| Melting point: | No data available |
| Initial boiling point and boiling range: | No data available |
| Flash point: | No data available |

Flammability

| | |
|--------|-------------------|
| Solid: | No data available |
| Gas: | No data available |

Explosive properties

The product is not explosive, however, formation of explosive mixtures are possible.

| | |
|-------------------------|-------------------|
| Lower explosion limits: | No data available |
| Ignition temperature: | No data available |

Autoignition temperature

| | |
|----------------------------|-------------------|
| Solid: | No data available |
| Gas: | No data available |
| Decomposition temperature: | No data available |

Oxidizing properties

| | |
|------------------------|-------------------|
| No data available | |
| Vapour pressure: | No data available |
| Density: | No data available |
| Water solubility: | Immiscible |
| Partition coefficient: | No data available |
| Viscosity / dynamic: | No data available |
| Viscosity / kinematic: | No data available |
| Vapour density: | not determined |

9.2. Other information

No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No dangerous reactivity under regular conditions.

10.2. Chemical stability

The product is stable under regular conditions.

Kryonaut Extreme

Revision date: 04.07.2024

Product code: TG-004

Page 5 of 7

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

heat. frost.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

It may produce hazardous fumes like carbon monoxide or carbon dioxide.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Based on available data, the classification criteria are not met.

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

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**

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulation potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The components in this mixture do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Disposal according to official regulations.

Kryonaut Extreme

Revision date: 04.07.2024

Product code: TG-004

Page 6 of 7

Consult the local waste disposal expert about waste disposal. According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1 UN number:**

No dangerous good in sense of this transport regulation

14.2 UN proper shipping name:

No dangerous good in sense of this transport regulation

14.3 Transport hazard class(es):

No dangerous good in sense of this transport regulation

14.4 Packing group:

No dangerous good in sense of this transport regulation

Inland waterways transport (ADN)**14.1 UN number:**

No dangerous good in sense of this transport regulation

14.2 UN proper shipping name:

No dangerous good in sense of this transport regulation

14.3 Transport hazard class(es):

No dangerous good in sense of this transport regulation

14.4 Packing group:

No dangerous good in sense of this transport regulation

Marine transport (IMDG)**14.1 UN number:**

No dangerous good in sense of this transport regulation

14.2 UN proper shipping name:

No dangerous good in sense of this transport regulation

14.3 Transport hazard class(es):

No dangerous good in sense of this transport regulation

14.4 Packing group:

No dangerous good in sense of this transport regulation

Air transport (ICAO-TI/IATA-DGR)**14.1 UN number:**

No dangerous good in sense of this transport regulation

14.2 UN proper shipping name:

No dangerous good in sense of this transport regulation

14.3 Transport hazard class(es):

No dangerous good in sense of this transport regulation

14.4 Packing group:

No dangerous good in sense of this transport regulation

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No special precautions known.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information****Additional information**

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable

Regulation (EC) No. 648/2004 (Detergents regulation): not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

National regulatory information

Water hazard class (D): - - non-hazardous to water

Kryonaut Extreme

Revision date: 04.07.2024

Product code: TG-004

Page 7 of 7

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

Version 1,00 - Creation - 27.07.2020

Version 1,01 - General update - 30.09.2020

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

BImSchV (Fed.Imm.Prot.Act): Directive on the Implementation of the Federal Immission Protection Act

CAS: Chemical Abstracts Service

EC: Effective Concentration

EG: European Community (Europäische Gemeinschaft)

EN: European Norm

IATA: International Air Transport Association

IBC Code: International Code for the Construction and Equipment of ships carrying Dangerous Chemicals in Bulk

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

CLP: Classification, Labeling, Packaging

IUCLID: International Uniform Chemical Information Database

LC: Lethal concentration

LD: Lethal dose

log Kow: Octanol/water partition coefficient

MARPOL: Maritime Pollution Convention = Convention for the Prevention of Maritime Pollution from Ships

OECD: Organisation for Economic Co-operation and Development

PBT: Persistent, bio-cumulative, toxic

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail

TRGS: Technische Regeln für Gefahrstoffe

VOC: Volatile Organic Compounds

vPvB: very persistent and very bio-cumulative

VwVwS: Administrative Regulation for Water Pollutants

WGK: German Water Hazard Class

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

DNEL: Derived No Effect Level

PNEC: Predicted No Effect Concentration

TLV: Threshold Limiting Value

STOT: Specific Target Organ Toxicity

Further information

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

asseso AG, Frohsinnstraße 28, 63739 Aschaffenburg, Germany

Phone: +49 (0)6021 - 1 50 86-0, Fax: +49 (0)6021 - 1 50 86-77, E-Mail: eu-sds@asseso.eu, www.asseso.eu

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)