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Revision date: 04.07.2024

Product code: TG-001

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

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Further trade names

Article no: TG-AR-100

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

Special cleaner for electronics

Uses advised against

Only use for the intended purpose.

Do not use to clean skin or clothing.

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/>**1.4. Emergency number:**

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.

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

Hazard categories:

Flammable liquid: Entz. Fl. 2

Severe eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour.

Causes severe eye irritation.

May cause drowsiness and drowsiness.

2.2. Label elements**Regulation (EC) No 1272/2008****Hazard components for labelling**

acetone; Propane-2-one; Acetone

Signal word: Danger**Pictograms:****Warnings**

H225

Highly flammable liquid and vapour.

H319

Causes severe eye irritation.

H336

May cause drowsiness or dizziness.

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Precautionary statements

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.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container according to regional/national regulations. Do not discard with household waste.

Specific labelling of certain mixtures

EUH066	Repeated exposure may cause skin dryness or cracking
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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****Hazardous components**

CAS-No.	Chemical Name	Quantity in %		
	EC-No.	Index-No.	REACH-No.	
	GHS-Classification			
67-64-1	acetone; propan-2-one; propanone			100
	200-662-2	606-001-00-8		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			

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.

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

Causes severe eye irritation in combination with intense redness and swelling of the conjunctiva. May cause drowsiness or dizziness.

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.

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**

Consider the usual precautions for handling chemicals. Ensure adequate ventilation. Avoid contact with skin, eyes and clothes. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

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Take precautionary measures against static discharges.

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

Further information on handling

Use only antistatically equipped (spark-free) tools.

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

Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place. Ensure adequate ventilation of the storage area.

Further information on storage conditions

Protect from sunlight and heat sources. Avoid ignition sources.

7.3. Specific end use(s)

Special cleaner for electronics

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
67-64-1	Acetone	500	1210		TWA (8 h)	WEL
		1500	3620		STEL (15 min)	WEL

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.

Recommended material: NBR (Nitrile rubber) Thickness of glove material: $\geq 0,5$ mm.

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: liquid
Colour: colourless
Odour: like: Acetone

pH:

Test method
not determined

Changes in the physical state

Melting point: -94.7 °C

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Initial boiling point and boiling range: 55,8-56,6 °C
Flash point: < -18 °C

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: 2,6 vol. %
Upper explosion limits: 13 vol. %
Ignition temperature: 465 °C

Autoignition temperature

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

Oxidizing properties

No data available
Vapour pressure: (at 20 °C) 233 hPa
Density (at 20 °C): 0,79 g/cm³
Water solubility: Immiscible
Partition coefficient: No data available OECD (TG) 117
Viscosity / dynamic: (at 25 °C) 32 mPa·s
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.

10.3. Possibility of hazardous reactions

Do not expose to temperatures exceeding 50°C/ 122°F. Heating causes rise in pressure with risk of bursting. explosive in a mixture with air

10.4. Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

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

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

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

CAS No	Chemical name	Exposure route	Dose	Species	Source	Method
67-64-1	acetone; propan-2-one; propanone	oral	LD50 5800 mg/kg	Rat	RTECS	
		dermal	LD50 20000 mg/kg	Rabbit	IUCLID	
		inhalation (4 h) vapour	LC50 76 mg/l	Rat		

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on the 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

May cause drowsiness or dizziness. (acetone; propan-2-one; propanone)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

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

SECTION 12: Ecological information**12.1. Toxicity**

No data available.

CAS No.	Chemical name	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
67-64-1	acetone; Propane-2-one; Acetone	Acute fish toxicity	LC50 5540 mg/l	96 h	Onchorhynchus mykiss		
		Acute crustacea toxicity	EC50 6100 mg/l	48 h	Daphnia magna		

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulation potential

No data available.

Partition coefficient n-octanol/water

CAS No.	Chemical name	Log Pow
67-64-1	acetone; propan-2-one; propanone	-0,24

12.4. Mobility in soil

No data available.

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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.

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.

List of Wastes Code - residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

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: UN 1090
14.2 UN proper shipping name: ACETONE
14.3 Transport hazard class(es): 3
14.4 Packing group: II
Hazard label: 3



Classification code: F1
Limited quantity: 1 L
Excepted quantity: E2
Transport category: 2
Hazard No: 33
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1 UN number: UN 1090
14.2 UN proper shipping name: ACETONE
14.3 Transport hazard class(es): 3
14.4 Packing group: II
Hazard label: 3



Classification code: F1
Limited quantity: 1 L
Excepted quantity: E2

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Marine transport (IMDG)

14.1 UN number:	UN 1090
14.2 UN proper shipping name:	ACETONE
14.3 Transport hazard class(es):	3
14.4 Packing group:	II
Hazard label:	3



Special provisions:	-
Limited quantity:	1 L
Excepted quantity:	E2
Ems:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1 UN number:	UN 1090
14.2 UN proper shipping name:	ACETONE
14.3 Transport hazard class(es):	3
14.4 Packing group:	II
Hazard labels:	3



Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions – Passenger:	353
IATA-max. quantity – Passenger:	5 L
IATA-packing instructions – Cargo:	364
IATA-max. quantity – Cargo:	60 L

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**

Restrictions on use (REACH, annex XVII):
Entry 3: acetone; propan-2-one; propanone
2004/42/EC (VOC): 750,1 g/l

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

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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): 1 - slightly hazardous to water

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 - Creation - 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

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method

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Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

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:

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