SECTION1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code : THERMONET CALDAIE
Chemical Name: Potassium Nitrate CAS: 7757-79-1 - EC No: 231-818-8 - REACH: 01-2119488224-35

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

Ready-to-use universal mastic paste.
Sectors of use:
Professional use[SU22]

Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

FACOT CHEMICALS S.r.l.
via Crema, 44- 26010 Capralba (CR) - Italy
Tel. 39 0373 450642 / 450643, Fax 0+39 373 450751
e-mail: info@facot.it - www.facot.it

e-mail competent person: msds@facot.it

1.4. Emergency telephone number

CENTRI ANTIVELENO ITALIANI:
CAV "Osp. Pediatrico Bambino Gesù" DEA. Roma, P.za Sant'Onofrio, 4 - 00165. Tel 06 68593726
Az. Osp. Univ. Foggia. Foggia, V.le Luigi Pinto, 1 - 71122. Tel 800183459
Az. Osp. "A. Cardarelli". Napoli, Via A. Cardarelli, 9 - 80131. Tel 081-5453333
CAV Policlinico "Umberto I". Roma, V.le del Policlinico, 155-161. Tel 06-49978000
CAV Policlinico "A. Gemelli". Roma, Largo Agostino Gemelli, 8 - 168. Tel 06-3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica. Firenze, Largo Brambilla, 3 - 50134. Tel 055-7947819
CAV Centro Nazionale di Informazione Tossicologica. Pavia, Via Salvatore Maugeri, 10 - 27100. Tel 0382-24444
Osp. Niguarda Ca' Granda. Milano, Piazza Ospedale Maggiore,3 - 20162. Tel 02-66101029
Azienda Ospedaliera Papa Giovanni XXII. Bergamo, Piazza OMS, 1 - 24127. Tel 800883300

IPCS: http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/index.html

SECTION2. Hazards identification

2.1. Classification of the substance or mixture

CAS 7757-79-1 EINECS 231-818-8 REACH 01-2119488224-35

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:
GHS03

Hazard Class and Category Code(s):
Ox. Sol. 2

Hazard statement Code(s):

H272 - May intensify fire; oxidiser.

The product has oxidizing properties can intensify fire

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
GHS03 - Danger

Hazard statement Code(s):
H272 - May intensify fire; oxidiser.

Supplemental Hazard statement Code(s):
not applicable

Precautionary statements:
Prevention
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 - Keep away from clothing and other combustible materials.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Response
P370+P378 - In case of fire: Use CO2 or foam to extinguish.
Disposal
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

2.3. Other hazards

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

No information on other hazards

SECTION3. Composition/information on ingredients

3.1 Substances

Refer to paragraph 16 for full text of hazard statements

Substance	% (w/w)	Classification	Identificativi
Potassium Nitrate	100%	Ox. Sol. 3, H272	CE CAS 7757-79-1 EINECS 231-818-8 REACH 01-2119488224-35

3.2 Mixtures

Irrilevant

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area.
If you feel unwell seek medical advice.

Direct contact with skin (of the pure product).:
Wash thoroughly with soap and running water.

Direct contact with eyes (of the pure product).:
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

Ingestion:
Rinse mouth with water of the subject. Consult a physician.

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

No data available.

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

No data available.

SECTION5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
In the case of fire use: water spray or CO2.
Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing means to avoid:
Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:
Wear mask, gloves and protective clothing.
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Provision of sufficient ventilation.
Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill
Inform the competent authorities.
Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Rapidly recover the product, wear a mask and protective clothing
Recover the product for reuse, if possible, or the removal.

6.3.2 For cleaning up:
After wiping up, wash the area and materials involved

6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION7. Handling and storage

7.1. Precautions for safe handling

Wear protective gloves/protective clothing/eye protection/face protection.
At work do not eat or drink.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Keep away from combustible materials.
Keep away from open flames, sparks and heat sources. Avoid direct sunlight exposure.

7.3. Specific end use(s)

Professional use:
Follow the rules of good hygiene in the workplace.

SECTION8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:
Potassium Nitrate:
GESTIS International Limit Values (https://limitvalue.ifa.dguv.de/)
Latvia : TLV-TWA= 5 mg/m³

8.2. Exposure controls

Appropriate engineering controls:
Professional use:
Well ventilated environment. Observe the safety measures used in handling chemicals.

Individual protection measures:

a) Eye / face protection
When handling the pure product use safety glasses (spectacles cage) (EN 166).

b) Skin protection

i) Hand protection
When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

ii) Other
When handling the pure product wear full protective skin clothing.

c) Respiratory protection
Use adequate protective respiratory equipment (EN 14387:2008)

d) Thermal hazards
No hazard to report

Environmental exposure controls:
Use according to good working practices to avoid pollution into the environment.

SECTION9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	White cristalline solid	Visual
Odour	Odourless	Olfactory
Odour threshold	Undefined	
pH	7	
Melting point/freezing point	335°C (start decomposition)	
Initial boiling point and boiling range	The substance is a solid that melts above 300°C and decomposes before boiling point.	

Physical and chemical properties	Value	Determination method
Flash point	Irrelevant	
Evaporation rate	Undefined	
Flammability (solid, gas)	Note 1	
Upper/lower flammability or explosive limits	Not determined	
Vapour pressure	Undefined	
Vapour density	Undefined	
Relative density	2,100 ± 0,050 gr/cm3	
Solubility	Undefined	
Water solubility	> 10% (20°C)	
Partition coefficient: n-octanol/water	Not determined	
Auto-ignition temperature	Not determined	
Decomposition temperature	400°C	
Viscosity	Not determined	
Explosive properties	Not explosive	
Oxidising properties	Undefined	

9.2. Other information

Note 1: JUSTIFICATION FOR THE WAIVER OF DATA;
Combustion refers to a chemical reaction with oxygen that releases energy in the form of heat and light. Nitrogen is in the highest oxidation state (+5) and will not react (further) with oxygen. Potassium has a stable oxidation state (+1) and will not react with anything. It was therefore concluded that potassium nitrate is a stable non-flammable salt. It cannot be ignited by a flame and will not spread combustion along a pile of substances. Upon heating, potassium nitrate dissolves (at about 333-337 ° C) and after further heating decomposes into potassium nitrite (KNO2) and oxygen. It was concluded that the substance is not flammable by ignition.

SECTION10. Stability and reactivity

10.1. Reactivity

No reactivity hazards

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Nothing to report

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION11. Toxicological information

11.1. Information on toxicological effects

ATE oral = ∞
ATE dermal = ∞
ATE inhal = ∞

(a) acute toxicity: based on available data, the classification criteria are not met.
(b) skin corrosion/irritationbased on available data, the classification criteria are not met.
(c) serious eye damage/irritation: based on available data, the classification criteria are not met.
(d) respiratory or skin sensitization: based on available data, the classification criteria are not met.
(e) germ cell mutagenicity: based on available data, the classification criteria are not met.
(f) carcinogenicity: based on available data, the classification criteria are not met.
(g) reproductive toxicity: based on available data, the classification criteria are not met.
(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
(i) specific target organ toxicity (STOT) repeated exposure: based on available data, the classification criteria are not met.
(j) aspiration hazard: based on available data, the classification criteria are not met.

Potassium Nitrate:
LD50 (rat) Oral (mg/kg body weight) = 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) > 5000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) > 0,52

SECTION12. Ecological information

12.1. Toxicity

Related to contained substances:
Potassium Nitrate:
LC50=1378mg/L (fish, poecilia reticulata, 96h)
EC50=490mg/L (crostaceous, daphnia magna, 48h)
EC50>1700mg/L (algae, 10d)

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

12.6. Other adverse effects

No adverse effects

SECTION13. Disposal considerations

13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.
Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

SECTION14. Transport information

14.1. UN number

ADR/RID/IMDG/ICAO-IATA: 1486

If subject to the following characteristics is ADR exempt:
Combination packagings: per inner packaging 5 kg per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 5 kg per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: NITRATO DI POTASSIO
ADR/RID/IMDG: POTASSIUM NITRATE
ICAO-IATA: POTASSIUM NITRATE

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 5.1
ADR/RID/IMDG/ICAO-IATA: Label : 5.1
ADR: Tunnel restriction code : E
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 5 kg
IMDG - EmS : F-A, S-Q

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: III

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous
IMDG: Marine polluting agent : Not

14.6. Special precautions for user

The goods must be transported by vehicles authorized to transport of dangerous goods according to the current edition of ADR requirements and applicable national regulations.
The goods must be in original packing, however, in packaging made of materials resistant to their content and not likely to generate with this dangerous reactions. People loading and unloading dangerous goods must be trained on the risks from these substances and that must be taken in case of emergency situations.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

It is not intended to carry bulk

SECTION15. Regulatory information

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

Reg (EC) n. 1907/2006 (REACH), Reg (EC) n. 1272/2008 (CLP), Reg (EC) n. 830/2015 (Requirements for the compilation of safety data sheets), Reg (E) n.790/2009, Dir 96/82/EC as amended.
Seveso category:
P8 - OXIDISING LIQUIDS AND SOLIDS

REGULATION (EU) No 1357/2014 - waste:
HP2 - Oxidising

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION16. Other information

16.1. Other information

Description of the hazard statements exposed to point 3
H272 = May intensify fire; oxidiser.

Regulatory information:
Reg 1907/2006 EC
Reg 1272/2008 EC
Reg 830/2015 EC

Bibliographic data :
SAX 12 Ed Van Nostrand Reinhold
MERCK INDEX 15 Ed

ECHA: European Chemicals Agency (https://echa.europa.eu/it/information-on-chemicals)
OSHA: European Agency for Safety and Health at Work
IARC: International Agency for Research on Cancer
IPCS: International Programme on Chemical Safety (Cards)
NIOSH: Registry of toxic effects of chemical substances (1983)
ACGIH: American Conference of Governmental Industrial Hygienists
TOXNET: Toxicology Data Network
WHO: World Health Organization
CheLIST: Chemical Lists Information System
GESTIS: Inetrnational Limit Value (https://limitvalue.ifa.dguv.de/)

Acronyms:
- ACGIH American Conference of Governmental Industrial Hygienists
- ADR Accord 5Européen Relatif au Transport International des Marchandises Dangereuses par Route (European accord regarding international transport of dangerous goods by land)
- bw body weight
- CLP Classification, Labelling and Packaging
- CSR Chemical Safety Report
- DMEL Derived Minimal Effect Level
- DNEL Derived No Effect Level
- dw dry weight
- EC Effective Concentration
- IATA International Air Transport Association
- IMDG International Maritime Dangerous Goods
- LC Lethal Concentration
- LD Lethal Dose
- m.w. molecular weight
- PBT Persistent, Bioaccumulative and Toxic
- PNEC Predicted No Effect Concentration
- OECD Organisation / Office for Economic Co-operation and Development
- STEL Short Term Exposure Limit
- SVHC Substance of Very High Concern
- TLV Threshold Limit Value
- TWA Time Weighted Average
- vPvB very Persistent, very Bioaccumulative and toxic
- WGK Wassergefährdungsklasse (Water hazard class)

NOTICE TO USERS
The information contained in this sheet are based on the knowledge available at the date of the preparation of this sheet.
The user must be aware of the possible risks associated with the use of the product, other than that for which the product is supplied. The sheet does not exonerate the user from knowing and applying all the regulations governing its activities. The set of regulations mentioned is simply to help the user to fulfill its obligations regarding the use of hazardous products.
This sheet does not exonerate the user from other legal obligations than those mentioned and from rules regulating possession and use of the product, since the user is the only responsible.

*** This sheet supersedes all previous editions.