

# MATERIAL SAFETY DATA SHEET // INUTEQ-PAC 24°C ACCORDING TO REGULATION (EC) NO. 1907/2006

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Date of first issue: 18.04.2017

INUTEQ-PAC 24°C is a water insoluble organic phase change material (PCM) derived from plant-based feedstocks and has the form of a crystalline wax or oily liquid (depending on temperature).

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

### 1.1 Product identifier

Trade name INUTEQ-PAC@24C



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

Use of the substance/Mixture:

Heat transfer agents

### 1.3 Details of the supplier of the safety data sheet

Company: INUTEQ B.V.  
Osnabrückstraat 30  
7418 BN Deventer  
Tel. :+31850653797  
support@inuteq.com

### 1.4 Emergency telephone number

USA: 24 Hour Emergency Response Information CHEMTREC toll free: 1-800-424-9300; direct/international: 1-703-527-3887. CANADA: CANUTEC 1-888-CAN-UTEC (226-8832), 613-996-6666 or \*666. EUROPE: 00 32 3575 5555. ASIA PACIFIC - excl. China: +65 6542-9595. CHINA: +86 816-635 2206. AUSTRALIA: +61 2 9616 5890. SOUTH AFRICA: +32 3 575 55 55. BRASIL: Suatrans 0800 707 7022 / 0800 707 1767. LATAM: Suatrans (+55) 11 98149-0850 / (+55) 19 3833-5300. INDIA: +91 22 309486-01/2. JAPAN: +65 6542 9595 (24時間日本語対応無料通話, シンガポール). TÜRKIYE: Sağlık Bakanlığı Ulusal Zehir Merkezi - 114

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture Classification (REGULATION) (EC) No 1272/2008

Not a hazardous substance or mixture.

### 2.2 Label elements Labelling (REGULATION) (EC) No 1272/2008

Not a hazardous substance or mixture

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/ information on ingredients

### 3.1 Substances

#### Hazardous components

Remarks: No hazardous ingredients

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

If inhaled: If breathed in, move person into fresh air. If symptoms persist, call a physician.

In case of skin contact: In case of contact, immediately flush skin with soap and plenty of water. If symptoms persist, call a physician.

In case of eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed: If swallowed, call a poison control centre or doctor immediately.

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

Symptoms: None known.

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

Treatment: None known.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Unsuitable extinguishing media: High volume water jet

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: In case of fire hazardous decomposition products may be produced such as: Carbon oxides

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

### 5.3 Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

Further information: Prevent fire

extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

### 6.2 Environmental precautions

Prevent product from entering drains.

### 6.3 Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal.

### 6.4 Reference to other sections:

None.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling: Avoid dust formation. Handle in accordance with good industrial hygiene and safety practice.

Advice on protection against fire and explosion: Provide appropriate exhaust ventilation at places where dust is formed. Avoid dust formation in confined areas.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Store in original container. Container which are opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed in a dry and well-ventilated place.

Advice on common storage:

No special restrictions on storage with other products.

Other data: Keep in a dry place. Stable under recommend storage conditions.

### 7.3 Specific end use(s)

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Personal protective equipment

Eye protection: Safety glasses with side-shields.

Hand protection  
Remarks: For prolonged or repeated contact use protective gloves.

Skin and body protection: Impervious clothing  
Respiratory protection: No personal respiratory protective equipment normally required.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance: Solid  
Colour: White  
Odour: No data available  
Odour Threshold: No data available  
pH: Not applicable  
Melting point: 24 °C  
Boiling point: No data available  
Flash point: No data available  
Evaporation rate: No data available  
Flammability (solid, gas): No data available  
Upper explosion limit / Upper flammability limit: No data available  
Lower explosion limit / Lower flammability limit: No data available  
Vapour pressure: No data available  
Relative vapour density: No data available  
Density: 0.86 g/cm<sup>3</sup> (20 °C)  
Solubility(ies)  
Water solubility: Insoluble  
Solubility in other solvents: Not determined  
Partition coefficient:  
n-octanol/water: No data available  
Auto-ignition temperature: No data available  
Decomposition temperature: No data available  
Viscosity  
Viscosity, dynamic: No data available  
Viscosity, kinematic: No data available  
Explosive properties: Classification Code: No data available  
Oxidizing: No data available

### 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

No data available

### 10.3 Possibility of hazardous reactions

Hazardous reactions:  
Stable under recommended storage conditions.

### 10.4 Conditions to avoid

Conditions to avoid: Avoid dust information

### 10.5 Incompatible materials

Materials to avoid: Strong oxidizing agents

### 10.6 Hazardous decomposition products

No data available

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

**Product:**  
Acute oral toxicity: Remarks: By analogy it is considered that this product is of low oral toxicity.  
Acute inhalation toxicity: No data available  
Acute dermal toxicity: No data available

#### Skin corrosion/irritation

**Product:**  
Remarks: No data available

#### Serious eye damage/eye irritation

**Product:**  
Remarks: No data available

#### Respiratory or skin sensitisation

**Product:**  
Remarks: No data available

#### Germ cell mutagenicity

**Product:**  
Genotoxicity in vitro:  
Remarks: No data available

#### Carcinogenicity

**Product:**  
Carcinogenicity -  
Assessment: No data available

#### Reproductive toxicity

**Product:**  
Effects on fertility:  
Test substance: No data available

### STOT - single exposure

**Product:**  
Assessment: No data available

### STOT - repeated exposure

**Product:**  
Assessment: No data available

### Aspiration toxicity

**Product:**  
No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

**Product:**  
Toxicity to fish: Remarks: No data available

### 12.2 Persistence and degradability

**Product:**  
Biodegradability:  
Remarks: Expected to be biodegradable Information given is based on data obtained from similar substances.

### 12.3 Bioaccumulative potential

**Product:**  
Bioaccumulation:  
Remarks: No data available

### 12.4 Mobility in soil

**Product:**  
Distribution among environmental compartments:  
Remarks: No data available

### 12.5 Results of PBT and vPvB assessment

**Product:**  
Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects

**Product:**  
Additional ecological information: No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product: Dispose of in accordance with local regulations.

Contaminated packaging: Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## SECTION 14: Transport information

### 14.1 UN number

Not regulated as a dangerous good

### 14.2 UN proper shipping name

Not regulated as a dangerous good

### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

### 14.4 Packing group

Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Not applicable

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC code

Not applicable for products as supplied

## SECTION 15: Regulatory information

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

**The components of this product are reported in the following inventories:**

REACH: On the inventory, or in compliance with the inventory.

CH INV: On the inventory, or in compliance with the inventory

TSCA: All chemical substances in this product are listed on the TSCA Inventory.

DSL: This product contains one or several components listed in the Canadian NDSL.

ENCS: On the inventory, or in compliance with the inventory.

ISHL: On the inventory, or in compliance with the inventory.

KECI: On the inventory, or in compliance with the inventory.

## 15.2 Chemical safety assessment

This information is not available.

## SECTION 16: Other information

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition

Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control

# MATERIAL SAFETY DATA SHEET // INUTEQ-PAC 24C ACCORDING TO REGULATION (EC) NO. 1907/2006

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## INUTEQ-SEAL® (PACKAGING FILM)

- 1. Composition**  
Film based on thermoplastic polyurethane.
- 2. Possible Hazards**  
Polyurethane films are not hazardous articles under the Council of the European Communities Directives. Polyurethane films do not present any specific hazards to health or safety when used in accordance with reasonable industrial practice, hygiene and good housekeeping.
- 3. First aid measures**  
Skin contact; Injuries from molten material require medical treatment. Cool immediately with water and consult a physician.
- 4. Fire-fighting measures**  
Extinguishing Media: water, foam, dry powder, carbon dioxide.
- 5. Accidental release measures**  
No special measures required.
- 6. Handling and storage**  
No special protective measures against fire and explosion required. Store the films in a cool, dry place.
- 7. Physical and chemical properties**  
Odour: natural / transparent Ignition temperature: >250C
- 8. Ecological information**  
No effects known to be harmful to the environment. Non-water hazardous.
- 9. Disposal considerations**  
Polyurethane films may be discharged or incinerated together with household refuse if local official regulations are observed. The material can be recycled in its original and uncontaminated condition.

### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.