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

1.1. Product identifier
Trade name or designation of the mixture: TPCM200SP
Registration number: -
Synonyms: None.
Issue date: 31-March-2016
Version number: 01
Revision date: -
Supersedes date: -

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Industrial use.
Uses advised against: None known.

1.3. Details of the supplier of the safety data sheet
Manufacturer: Laird
Address: 4707 Detroit Ave Cleveland, Ohio 44102
Telephone number: +1-216-939-2300
Email: clv-customerservice@lairdtech.com

Manufacturer: Laird
Address: C3&C4 Building, HongTai Industry Park, NO.87 Tai Feng Road, TEDA, Tianjin, China
Telephone number: +86(0)22-66298160

Corporate Office: Laird PLC
Address: 100 Pall Mall, London, SW1Y 5NQ
Telephone number: +44 (0)20 7468 4040

1.4. Emergency telephone number
Within USA and Canada: 1-800-424-9300 (Chemtrec). Other Countries: +1-703-527-3887.
Telephone hours: 24 hours per day, 7 days per week. Collect calls accepted.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards
- Flammable liquids
  Category 3
  H226 - Flammable liquid and vapour.

Health hazards
- Aspiration hazard
  Category 1
  H304 - May be fatal if swallowed and enters airways.

Hazard summary
May be ignited by heat, sparks or flames. May be fatal if swallowed and enters airways. Occupational exposure to the substance or mixture may cause adverse health effects.

2.2. Label elements
Label according to Regulation (EC) No. 1272/2008 as amended
Contains:
- Naphtha (petroleum), hydrotreated heavy
2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>%</th>
<th>CAS-No. / EC No.</th>
<th>REACH Registration No.</th>
<th>INDEX No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>3 - 9</td>
<td>64742-48-9</td>
<td>-</td>
<td>649-327-00-6</td>
<td></td>
</tr>
<tr>
<td>Classification:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flam. Liq. 3; H226, Asp. Tox. 1; H304</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

General information

Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting.

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

Aspiration may cause pulmonary oedema and pneumonitis. Exposure may cause temporary irritation, redness, or discomfort.

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

Treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.
SECTION 5: Firefighting measures

General fire hazards

Flammable liquid and vapour.

5.1. Extinguishing media

Suitable extinguishing media


Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Special protective equipment for firefighters

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

For emergency responders

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains. Stop the flow of material, if this is without risk. Following product recovery, flush area with water. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Keep in an area equipped with sprinklers. Store away from incompatible materials (see section 10 of the SDS).

7.3. Specific end use(s)

Industrial use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)</td>
<td>TWA</td>
<td>1 mg/m3</td>
<td>Vapor.</td>
</tr>
</tbody>
</table>

Finland. Workplace Exposure Limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)</td>
<td>TWA</td>
<td>500 mg/m3</td>
</tr>
</tbody>
</table>
### Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)</td>
<td>TWA</td>
<td>300 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

### Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)</td>
<td>TWA</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

### Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)</td>
<td>TWA</td>
<td>400 ppm</td>
</tr>
</tbody>
</table>

### Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)</td>
<td>STEL</td>
<td>200 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 mg/m³</td>
</tr>
</tbody>
</table>

### Switzerland. SUVA Grenzwerte am Arbeitsplatz

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)</td>
<td>STEL</td>
<td>600 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

### Biological limit values
- No biological exposure limits noted for the ingredient(s).

### Recommended monitoring procedures
- Follow standard monitoring procedures.

### Derived no-effect level (DNEL)
- Not available.

### Predicted no effect concentrations (PNECs)
- Not available.

### 8.2. Exposure controls

#### Appropriate engineering controls
- Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

#### Individual protection measures, such as personal protective equipment

- **General information**
  - Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

- **Eye/face protection**
  - Wear safety glasses with side shields (or goggles).

- **Skin protection**
  - **Hand protection**
    - Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
  - **Other**
    - Wear suitable protective clothing.

- **Respiratory protection**
  - If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

- **Thermal hazards**
  - Wear appropriate thermal protective clothing, when necessary.

- **Hygiene measures**
  - When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
- Physical state: Solid, Liquid.
- Form: Encapsulated product diluted with a solvent
- Colour: Grey to white.
- Odour: Mild solvent.

Odour threshold: Not applicable.

pH: Not applicable.

Melting point/freezing point: Not applicable.

Initial boiling point and boiling range: Not applicable.

Flash point: 54,0 °C (129,2 °F) (ASTM D-56)

Evaporation rate: Not available.

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits
- Flammability limit - lower (%): > 0,7 %
- Flammability limit - upper (%): < 5,4 %

Vapour pressure: Not applicable.

Vapour density: Not applicable.

Relative density: 2,1 - 2,48

Relative density temperature: 25 °C (77 °F)

Solubility(ies): Negative.

Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature: 343 °C (649,4 °F)

Decomposition temperature: Not applicable.

Viscosity: Not applicable.

Explosive properties: Not explosive.

Oxidising properties: Not oxidising.

9.2. Other information
- VOC (Weight %): 5 - 10 % w/w

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Material is stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid
Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the decomposition temperature. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

10.5. Incompatible materials
Strong oxidising agents.

10.6. Hazardous decomposition products
Carbon oxides. Metal oxides.

SECTION 11: Toxicological information

General information
Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure
- Inhalation: Prolonged inhalation may be harmful.
- Skin contact: No adverse effects due to skin contact are expected.
- Eye contact: Direct contact with eyes may cause temporary irritation.
Ingestion

Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms

Aspiration may cause pulmonary oedema and pneumonitis. Exposure may cause temporary irritation, redness, or discomfort.

11.1. Information on toxicological effects

Acute toxicity

Not expected to be acutely toxic.

Skin corrosion/irritation

Due to partial or complete lack of data the classification is not possible.

Serious eye damage/eye irritation

Due to partial or complete lack of data the classification is not possible.

Respiratory sensitisation

Due to partial or complete lack of data the classification is not possible.

Skin sensitisation

Due to partial or complete lack of data the classification is not possible.

Germ cell mutagenicity

Due to partial or complete lack of data the classification is not possible.

Carcinogenicity

Due to partial or complete lack of data the classification is not possible.

Reproductive toxicity

Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - single exposure

Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - repeated exposure

Due to partial or complete lack of data the classification is not possible.

Aspiration hazard

May be fatal if swallowed and enters airways.

Mixture versus substance information

No information available.

Other information

Not available.

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met for hazardous to the aquatic environment, acute hazard. Due to partial or complete lack of data the classification for hazardous to the aquatic environment, long term hazard, is not possible. The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2. Persistence and degradability

No data is available on the degradability of this product.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Not available.

Bioconcentration factor (BCF)

Not available.

12.4. Mobility in soil

The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Not available.

12.6. Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code

The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions

Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

14.1. UN number

UN1268
14.2. UN proper shipping name
PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. (Naphtha (petroleum), hydrotreated heavy)

14.3. Transport hazard class(es)
- Class 3
- Subsidiary risk -
- Label(s) 3
- Hazard No. (ADR) 30
- Tunnel restriction code D/E

14.4. Packing group III
14.5. Environmental hazards No.
14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

RID
14.1. UN number UN1268
14.2. UN proper shipping name PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. (Naphtha (petroleum), hydrotreated heavy)
14.3. Transport hazard class(es)
- Class 3
- Subsidiary risk -
- Label(s) 3
14.4. Packing group III
14.5. Environmental hazards No.
14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

ADN
14.1. UN number UN1268
14.2. UN proper shipping name Petroleum products, n.o.s. (Naphtha (petroleum), hydrotreated heavy)
14.3. Transport hazard class(es)
- Class 3
- Subsidiary risk -
- Label(s) 3
14.4. Packing group III
14.5. Environmental hazards No.
14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

IATA
14.1. UN number UN1268
14.2. UN proper shipping name Petroleum products, n.o.s. (Naphtha (petroleum), hydrotreated heavy)
14.3. Transport hazard class(es)
- Class 3
- Subsidiary risk -
14.4. Packing group III
14.5. Environmental hazards No.
14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

IMDG
14.1. UN number UN1268
14.2. UN proper shipping name PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. (NAPHTHA (PETROLEUM), HYDROTREATED HEAVY)
14.3. Transport hazard class(es)
- Class 3
- Subsidiary risk -
14.4. Packing group III
14.5. Environmental hazards No.
14.6. Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not established.

TPCM200SP SDS EU
925142 Version #: 01 Revision date: - Issue date: 31-March-2016
SECTION 15: Regulatory information

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

EU regulations

- Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
- Not listed.

- Not listed.

- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
- Not listed.

- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended
- Not listed.

- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended
- Not listed.

- Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
- Not listed.

- Not listed.

Authorisations

- Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
- Not listed.

Restrictions on use

- Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
  - Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)
  - Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended
    - Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)
  - Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended
    - Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

Other EU regulations

- Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended
  - Zinc oxide (CAS 1314-13-2)

- Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended
  - Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

- Directive 94/33/EC on the protection of young people at work, as amended
  - Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. Pregnant women should not work with the product, if there is the least risk of exposure. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15

- H226 Flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.

Training information

Follow training instructions when handling this material.
Laird cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.