Material Safety Data Sheet

TACTIX® 742 RESIN

1. Product and company identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>TACTIX® 742 RESIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material uses</td>
<td>Component for special laminating systems</td>
</tr>
<tr>
<td>MSDS #</td>
<td>00049972</td>
</tr>
<tr>
<td>Validation date</td>
<td>1/18/2012.</td>
</tr>
<tr>
<td>Print date</td>
<td>1/18/2012.</td>
</tr>
</tbody>
</table>

Supplier/Manufacturer: Huntsman Advanced Materials Americas LLC
P.O. Box 4980
The Woodlands, TX 77387

Non-Emergency phone: (800) 257-5547
E-Mail: MSDS@huntsman.com

In case of emergency: Chemtrec: (800) 424-9300 or (703) 527-3887

2. Hazards identification

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid. [Flakes.]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Color</td>
<td>Dark amber</td>
</tr>
</tbody>
</table>

OSHA/HCS status: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Emergency overview: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. Avoid prolonged contact with eyes, skin and clothing.

See toxicological information (Section 11)

GENERAL INFORMATION: Read the entire MSDS for a more thorough evaluation of the hazards.

3. Composition/information on ingredients

No hazardous ingredient

4. First aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
4. **First aid measures**

**Inhalation**: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.

**Ingestion**: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

**Notes to physician**: No specific treatment. Treat symptomatically. Call medical doctor or poison control center immediately if large quantities have been ingested.

5. **Fire-fighting measures**

**Flash point**

**Hazardous thermal decomposition products**: Closed cup: >200°C (>392°F) [DIN 51758 EN 22719 (Pensky-Martens Closed Cup)]

**Extinguishing media**

**Suitable**: Use an extinguishing agent suitable for the surrounding fire.

**Not suitable**: None known.

**Special exposure hazards**: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. **Accidental release measures**

**Personal precautions**: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions**: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods for cleaning up**: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. **Handling and storage**

**Handling**: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

**Storage**: Store between the following temperatures: 2 to 40°C (35.6 to 104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory: In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. >8 hours (breakthrough time): Ethyl Vinyl Alcohol Laminate (EVAL), butyl rubber

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

General information

Physical state: Solid. [Flakes.]
Color: Dark amber
Odor: Slight

Important health, safety and environmental information

pH: Not available.
Boiling/condensation point: Not available.
Melting/freezing point: Not available.
Flash point: Closed cup: >200°C (>392°F) [DIN 51758 EN 22719 (Pensky-Martens Closed Cup)]
Flammable limits: Not available.
Auto-ignition temperature: >200°C (>392°F)
Decomposition temperature: Not available.

Vapor pressure: <0.00001 kPa (<0.000075 mm Hg) [20°C]
Specific gravity: Not available.
Water solubility: Insoluble
9. Physical and chemical properties

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

**Viscosity**: Dynamic: 3000 to 4000 mPa·s (3000 to 4000 cP)

**Density**: Not available.

**Vapor density**: Not available.

**Evaporation rate (butyl acetate = 1)**: Not available.

**VOC**: Not applicable.

10. Stability and reactivity

**Chemical stability**: The product is stable.

Under normal conditions of storage and use, hazardous reactions will not occur.

**Hazardous polymerization**: Under normal conditions of storage and use, hazardous polymerization will not occur.

**Conditions to avoid**: No specific data.

**Materials to avoid**: Strong acids, strong bases, strong oxidising agents

**Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

**Potential acute health effects**

**Inhalation**: No known significant effects or critical hazards.

**Ingestion**: No known significant effects or critical hazards.

**Skin**: No known significant effects or critical hazards.

**Eyes**: No known significant effects or critical hazards.

**Potential chronic health effects**

**Chronic effects**: No known significant effects or critical hazards.

**Target organs**: No known significant effects or critical hazards.

**Carcinogenicity**: No known significant effects or critical hazards.

**Mutagenicity**: No known significant effects or critical hazards.

**Teratogenicity**: No known significant effects or critical hazards.

**Fertility effects**: No known significant effects or critical hazards.

**Developmental effects**: No known significant effects or critical hazards.

**Medical conditions aggravated by over-exposure**: None known.
12. Ecological information

**Environmental effects**: No known significant effects or critical hazards.

**Aquatic ecotoxicity**

**Biodegradability**

**Other ecological information**

- **Biological Oxygen Demand (BOD 5 DAY)**: Not Determined
- **Chemical Oxygen Demand (COD)**: Not Determined

**Other adverse effects**: No known significant effects or critical hazards.

**PBT**: No.

**Other information**

13. Disposal considerations

**Waste disposal**: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. Transport information

**Proper shipping name**

- **DOT**: Not regulated.
- **TDG**: Not regulated.
- **IMDG**: Not regulated.
- **IATA**: Not regulated.

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Classes</th>
<th>PG*</th>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td>Not regulated.</td>
<td>Not available.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TDG Classification</td>
<td>Not regulated.</td>
<td>Not available.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IMDG Class</td>
<td>Not regulated.</td>
<td>-</td>
<td>-</td>
<td>Emergency schedules (EmS)</td>
<td></td>
</tr>
<tr>
<td>IATA-DGR Class</td>
<td>Not regulated.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

PG*: Packing group
15. Regulatory information

U.S. Federal regulations

HCS Classification: Not regulated.
U.S. Federal regulations: United States inventory (TSCA 8b): This material is listed or exempted.
TSCA 5(a)2 final significant new use rule (SNUR): None.
TSCA 5(e) substance consent order: None.
TSCA 12(b) one-time export notification: None.
TSCA 12(b) annual export notification: None.
SARA 302/304/311/312 extremely hazardous substances: No Ingredient Listed
SARA 311/312 hazard identification: No Ingredient Listed

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): No Ingredients Listed.

Clean Air Act - Ozone Depleting Substances (ODS): This product does not contain nor is it manufactured with ozone depleting substances.

SARA 313: No ingredients listed.

CERCLA: Hazardous substances: No ingredients listed.

STATE REGULATIONS:

PENNSYLVANIA - RTK: This material is not listed.
California Prop 65: This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute. Not available.

Canada

WHMIS (Canada): Not controlled under WHMIS (Canada).
CEPA DSL: This material is listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
15 . Regulatory information

International lists:
- **Australia inventory (AICS)**: This material is listed or exempted.
- **China inventory (IECSC)**: This material is listed or exempted.
- **Japan inventory**: This material is listed or exempted.
- **Korea inventory**: This material is listed or exempted.
- **New Zealand Inventory of Chemicals (NZIoC)**: This material is listed or exempted.
- **Philippines inventory (PICCS)**: This material is listed or exempted.

16 . Other information

Label requirements: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

<table>
<thead>
<tr>
<th>Hazardous Material Information System (U.S.A.)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical hazards</td>
<td>0</td>
</tr>
<tr>
<td>Personal protection</td>
<td></td>
</tr>
</tbody>
</table>

The customer is responsible for determining the PPE code for this material.

<table>
<thead>
<tr>
<th>National Fire Protection Association (U.S.A.)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>1</td>
</tr>
<tr>
<td>Flammability</td>
<td></td>
</tr>
<tr>
<td>Instability</td>
<td>0</td>
</tr>
<tr>
<td>Special</td>
<td></td>
</tr>
</tbody>
</table>

**Date of printing**: 1/18/2012.
**Date of issue**: 1/18/2012.
**Date of previous issue**: No previous validation.
**Version**: 1

Indicates information that has changed from previously issued version.

**Notice to reader**

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined...
16. Other information

by the user and made known to handlers, processors and end users.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO
PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM
UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE. NO
PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS,
WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS FOR PERMISSION TO REPRODUCE
MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT
THE ABOVE ADDRESS.