STABAXOL I POWDER

SAFETY DATA SHEET

Section 1. Identification

Product identifier : STABAXOL I POWDER
Material Number : 56581336
Chemical name : bis(2,6-diisopropylphenyl)carbodimide
Identified uses : Antihydrolysis Agent
Supplier/Manufacturer : LANXESS Corporation
Rhein Chemie Additives
111 RIDC Park West Drive
Pittsburgh, PA  15275-1112
USA
For information: US/Canada (800) LANXESS
International +1 412 809 1000
Chemtrec (800) 424-9300
International (703)  527-3887
Lanxess Emergency Phone (800) 410-3063.

Section 2. Hazards identification

HAZCOM Standard Status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Physical state : Solid.
Color : Colorless to light yellow.
Classification of the substance or mixture : ACUTE TOXICITY (oral) - Category 4
TOXIC TO REPRODUCTION (Fertility) - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system, gastrointestinal tract, heart, kidneys and lymphatic system) - Category 1

Hazard pictograms :

Signal word : Danger
Hazard statements : Harmful if swallowed. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. (blood system, gastrointestinal tract, heart, kidneys, lymphatic system)
Hazard Not Otherwise Classified (HNOC) : None known.
Precautionary statements
Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection. Do not breathe dust. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF SWALLOWED: Rinse mouth.
Storage : Store locked up.
Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.
Section 2. Hazards identification

Supplemental label elements: Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.

Section 3. Composition/information on ingredients

Substance/mixture: Substance
Chemical name: bis(2,6-diisopropylphenyl)carbodiimide
CAS number: 2162-74-5

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',6,6'-Tetraisopropylidiphenyl Carbodiimide</td>
<td>100</td>
<td>2162-74-5</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of first aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. If not breathing, if breathing is irregular or respiratory arrest occurs, provide artificial respiration, or oxygen by a trained professional, using a pocket type respirator.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Potential acute health effects

Eye contact: No known significant effects or critical hazards.
Inhalation: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Ingestion: Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: No specific data.
Ingestion: Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

Potential chronic health effects
Section 4. First aid measures

Causes damage to organs through prolonged or repeated exposure. May damage fertility or the unborn child.

Notes to physician:
- Treat symptomatically. No specific treatment.

Protection of first-aiders:
- No special measures required.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:
- Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.

Unsuitable extinguishing media:
- None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products:
- In the event of fire, carbon monoxide, nitrogen oxides, isocyanate vapour, and traces of hydrogen cyanide may be released.

Special protective actions for fire-fighters:
- 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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:
- 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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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 and materials for containment and cleaning up:
- Move containers from spill area. Approach release from upwind. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, 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. Prevent entry into sewers, water courses, basements or confined areas.

Section 7. Handling and storage

Precautions for safe handling:
- Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Section 7. Handling and storage

Conditions for safe storage: 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. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide</td>
<td>None</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

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.

Respiratory protection: The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). Whenever vapor or mist of isocyanate is present, it is mandatory to use a full-face positive pressure, supplied-air respirator or a self-contained breathing apparatus (SCBA) if the recommended exposure limit is exceeded or the airborne concentrations are not known.

Skin protection: Wear suitable protective clothing and gloves. Suitable protective footwear.

Eye/face protection: If contact with product is possible, wear safety glasses with side shields.

Medical Surveillance: Vapours with isocyanate content may be released in processing at high temperatures. All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Applicants who have a history of adult asthma should be restricted from work with isocyanates. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, no further exposure can be permitted.

Section 9. Physical and chemical properties

Physical state: Solid. [powder]
Color: Colorless to light yellow.
Odor: Faint odor.
Odor threshold: Not available.
pH: Not available.
Boiling point: Not available.
Melting point: 40 to 45°C (104 to 113°F)
Flash point: Open cup: 194°C (381.2°F)
Evaporation rate: Not available.
Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion limits</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Density</td>
<td>0.97 g/cm³</td>
</tr>
<tr>
<td>Specific gravity (Relative density)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Bulk density</td>
<td>0.95 kg/m³</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble in the following materials: cold water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>430°C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&gt;430°C (&gt;806°F)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt;120°C</td>
</tr>
</tbody>
</table>

Section 10. Stability and reactivity

| Reactivity                              | No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability                      | The product is stable.                                                             |
| Possibility of hazardous reactions      | Under normal conditions of storage and use, hazardous reactions will not occur.       |
| Conditions to avoid                     | Extremes of temperature and direct sunlight. Keep away from oxidizing agents, strongly alkaline substance and highly acidic substance to avoid exothermic reactions. |
| Incompatible materials                  | amines, strong alkalis, alcohols and Water                                         |
| Hazardous decomposition products        | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Depending on the polymer processed, decomposition begins at processing temperatures of approx. 120°C and above. Vapours with isocyanate content may be released in processing at high temperatures. |

Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Information on the likely routes of exposure</th>
<th>Dermal contact. Eye contact. Inhalation. Ingestion.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential acute health effects</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>Symptoms related to the physical, chemical and toxicological characteristics</td>
<td></td>
</tr>
<tr>
<td>Eye contact</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.</td>
</tr>
</tbody>
</table>

Potential chronic health effects

| Short term exposure                         | Not available.                                      |
| Potential immediate effects                 | Decomposition begins at 120 °C. Vapours with isocyanate content may be released in processing at high temperatures Isocyanates may cause acute irritation and/or sensitisation of the respiratory system leading to tightness of the chest, wheeziness and an asthmatic condition. |
Section 11. Toxicological information

Long term exposure

Potential delayed effects: Not available.
General: Causes damage to organs through prolonged or repeated exposure. May damage fertility or the unborn child.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: May damage the unborn child.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: May damage fertility.

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>500 mg/kg</td>
<td>-</td>
<td>OECD 423 Acute Oral toxicity - Acute Toxic Class Method</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

Conclusion/Summary

Skin: 2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide: Non-irritating

Eyes: 2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide: Slight irritant, redness tested on rabbit eyes

Sensitization

Skin: 2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide: Not sensitizing (OECD 406)

Chronic toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide</td>
<td>Sub-chronic NOAEL Oral</td>
<td>Rat</td>
<td>4 mg/kg</td>
<td>28 days</td>
<td></td>
</tr>
</tbody>
</table>

Mutagenicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Experiment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide</td>
<td>-</td>
<td>Experiment: In vivo Subject: Bacteria</td>
<td>Negative</td>
</tr>
</tbody>
</table>

Conclusion/Summary: 2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide: Ames-test: negative
No mutagenic effect.

Carcinogenicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>CAS #</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide</td>
<td>2162-74-5</td>
<td>Not classified.</td>
<td>Not classified.</td>
<td>Not classified.</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide</td>
<td>Category 1</td>
<td>Not determined</td>
<td>blood system, gastrointestinal tract, heart, kidneys and lymphatic system</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>bis(2,6-diisoproplyphenyl) carbodiimide</td>
<td>-</td>
<td>Acute LC50 6727 mg/l</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**: Not available.

**Persistence and degradability**

**Conclusion/Summary**: Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

Not available.

**Mobility in soil**

**Soil/water partition coefficient (K_{OC})**: Not available.

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

Section 13. Disposal considerations

**Disposal methods**: The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

**RCRA classification**: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Section 14. Transport information
Section 14. Transport information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>Not regulated.</td>
</tr>
<tr>
<td>IMDG Class</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>Not regulated.</td>
</tr>
<tr>
<td>IATA-DGR Class</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>Not regulated.</td>
</tr>
</tbody>
</table>

PG* : Packing group

RQ : 0 lbs

Section 15. Regulatory information

SARA 311/312 : Immediate (acute) health hazard
               Delayed (chronic) health hazard

SARA Title III Section 302 Extremely Hazardous Substances : None

SARA Title III Section 313 Toxic Chemicals : None

US EPA CERCLA Hazardous Substances (40 CFR 302.4) : None

State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS number</th>
<th>State Code</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2',6,6'-Tetraisopropyldiphenyl Carbodiimide</td>
<td>2162-74-5</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

California Prop. 65

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

U.S. Toxic Substances Control Act : Listed on the TSCA Inventory.

Section 16. Other information

Hazardous Material Information System :  

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

*=Chronic
Section 16. Other information

The customer is responsible for determining the PPE code for this material. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

Our method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided as a customer service.

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Date of previous issue : 02-10-2017
Version : 5

Product Safety and Regulatory Affairs

▶ Indicates information that has changed from previously issued version.

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