Carbamazepine-\textit{d_{10}} (rings-\textit{d_{10}})

\textbf{Section 1. Chemical product and company identifications}

\begin{itemize}
  \item \textbf{Product code:} D-3542
  \item \textbf{Chemical formula:} \textit{C_{15}H_{20}D_{10}N_{2}O}
  \item \textbf{CAS:} 132183-78-9
  \item \textbf{CAS (unlabelled):} 298-46-4
  \item \textbf{Synonyms:} \textit{5\#Dibenz[b,f]azepine-5-carboxamide}
  \item \textbf{Supplier / Manufacturer:} C/D/N Isotopes Inc.
\end{itemize}

\textbf{In case of emergency:}

\textbf{C/D/N Isotopes Inc.}

88 Leacock Street
Pointe-Claire (Québec) H9R 1H1
Phone: 514-697-6254
Toll-Free (Canada & USA): 1-800-565-4696
Fax: 514-697-6148
Website: www.cdnisotopes.com

\textbf{Section 2. Hazards identifications}

\begin{itemize}
  \item \textbf{Physical state:} Solid
  \item \textbf{Warning:} Harmful if swallowed. May cause an allergic skin reaction.
  \item \textbf{Routes of entry:} Inhalation, ingestion, skin and eyes
  
  \textbf{GHS (Globally Harmonized System of Classification and Labelling of Chemicals):}

  \begin{itemize}
    \item \textbf{GHS Classification:}
      \begin{itemize}
        \item Acute toxicity, Oral (Category 4)
        \item Respiratory sensitisation (Category 1)
        \item Skin sensitisation (Category 1)
      \end{itemize}
    \item \textbf{GHS Label elements:}
      \begin{itemize}
        \item Pictograms: \includegraphics[width=2cm]{pictograms.png}
        \item Signal word: Danger
      \end{itemize}
    \item \textbf{Hazards statement:}
      \begin{itemize}
        \item H302 Harmful if swallowed.
        \item H317 May cause an allergic skin reaction.
        \item H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
      \end{itemize}
    \item \textbf{Precautionary statement:}
      \begin{itemize}
        \item P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
        \item P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
        \item P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
        \item P302 + P350 IF ON SKIN: Wash with plenty of soap and water.
        \item P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician
      \end{itemize}
  \end{itemize}
\end{itemize}

\textbf{Section 3. Composition and information on ingredients}

\begin{center}
\begin{tabular}{|c|c|c|}
  \hline
  \textbf{Name} & \textbf{CAS} & \textbf{Concentration \%} \\
  \hline
  Carbamazepine-\textit{d_{10}} & 132183-78-9 & > 98 \\
  \hline
\end{tabular}
\end{center}
Section 4. First aid measures

Eye contact: Flush eyes with water as a precaution.
Skin contact: Wash off with soap and plenty of water. Consult a physician.
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Section 5. Firefighting measures

Flammability of the product: Not flammable or combustible.
Lower explosion limit: No data available
Upper explosion limit: No data available
Auto-ignition temperature: No data available
Flash point: No data available
Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.
Firefighting media and instructions: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Section 6. Accidental release measures

Personal precautions: Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Avoid breathing dust.
Environmental precautions: Do not let product enter drains.
Methods for cleaning up: Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

Section 7. Handling and storage

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation.
Storage: Store at room temperature. Adequate ventilation.

Section 8. Exposure Controls, Personal Protections

Engineering controls: Use mechanical exhaust or laboratory fume hood to avoid exposure.
Eyes: Safety glasses with side-shields conforming to NIOSH (US) or EN 166 (EU).
Respiratory: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
Hands: Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Skin/body: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Section 9. Physical and chemical properties (unlabelled)

Molecular weight: 236.27 g/mol
Physical status: Solid
Color: White to off-white
Odour: No data available
Density: No data available
Melting point: 191 - 192 °C (376 - 378 °F)
Boiling point: No data available
Vapour pressure: No data available
Vapour density: No data available
Partition coefficient (octanol/water): log Pow: 2.45
Water solubility: No data available
Section 10. Stability and reactivity

Stability and reactivity: Stable under recommended storage conditions.
Incompatibility: Strong oxidizing agents.
Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.
Reactivity conditions: No data available

Section 11. Toxicological information (unlabelled)

Toxicological data: Carbamazepine

Information on ingredients:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbamazepine</td>
<td>298-46-4</td>
<td>Oral - Rat - 1,957 mg/kg</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Potential acute effects
- **Eyes:** May cause eye irritation.
- **Skin:** May be harmful if absorbed through skin. May cause skin irritation.
- **Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion:** Harmful if swallowed.

Potential chronic effects
- **Carcinogenic effects:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **Mutagenic effects:** No data available
- **Teratogenic effects:** No data available.
- **Medical conditions aggravated by overexposure:** No data available.

Section 12. Ecological information

Ecological data:

<table>
<thead>
<tr>
<th>Name</th>
<th>Results</th>
<th>Species</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbamazepine</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Effects on environment: No data available.
Mobility: No data available.
Environmental precautions: No data available.
Persistence and degradability: No data available.
Bioaccumulative potential: No data available.

Section 13. Disposal considerations

Waste disposal: Contact a licensed professional waste disposal service to dispose of this material.

Section 14. Transportation information

Classification DOT/IMDG/IATA label:
Shipping name: Not dangerous goods
UN number: None
Class: None
Packaging group: None

Additional information: None
Section 15. Regulatory information

UNITED STATES: NFPA classification

Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous

U.S. Federal regulations:

TSCA 8(b) inventory: Carbamazepine
SARA 302/304/311/312 extremely hazardous substances: Not Listed
SARA 302/304 emergency planning and notification: Not Listed
SARA 302/304/311/312 hazardous chemicals: Not Listed
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard: Not Listed
CWA (Clean Water Act) 307: Not Listed
CWA (Clean Water Act) 311: Not Listed
CAA (Clean Air Act) 112 accidental release prevention: Not Listed
CAA (Clean Air Act) 112 regulated flammable substances: Not Listed
CAA (Clean Air Act) 112 regulated toxic substances: Not Listed

State regulations:

DEA List I Chemicals (Precursor Chemicals): Not Listed
DEA List II Chemicals (Essential Chemicals): Not Listed
Substances in Massachusetts: Not Listed
Dangerous substances in New Jersey: Not Listed
Dangerous substances in Pennsylvania – right to know: Not Listed

WHMIS (Canada):

D2A - Very Toxic Material Causing Other Toxic Effects Respiratory sensitizer
D2B - Toxic Material Causing Other Toxic Effects

Section 16. Additional information

References:

- Manufacturer’s Material Safety Data Sheet.
- 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. -Canada
- Federal act on the controlled products
- Toxicological repertory, HSC.
- Material safety data sheet from the components.

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Elaborated by: Toxyscan Inc., 1-866-780-0599
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