1. \textbf{IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING}

1.1 \textbf{Product identifiers}

\begin{itemize}
    \item \textbf{Product name}: Sodium 4-methyl-2-oxovalerate
    \item \textbf{Product Number}: K0629
    \item \textbf{Brand}: Sigma
    \item \textbf{CAS-No.}: 4502-00-5
\end{itemize}

1.2 \textbf{Relevant identified uses of the substance or mixture and uses advised against}

\begin{itemize}
    \item \textbf{Identified uses}: Laboratory chemicals, Manufacture of substances
\end{itemize}

1.3 \textbf{Details of the supplier of the safety data sheet}

\begin{itemize}
    \item \textbf{Company}: Sigma-Aldrich Chemie BV
    \item \textbf{Address}: Stationsplein 4
    \item \textbf{Postcode} and \textbf{City}: 3331 LL ZWIJNDRECHT, NETHERLANDS
    \item \textbf{Telephone}: +31 78-620-5411
    \item \textbf{Fax}: +31 78-620-5421
    \item \textbf{E-mail address}: eurtechserv@sial.com
\end{itemize}

1.4 \textbf{Emergency telephone number}

\begin{itemize}
    \item \textbf{Emergency Phone #}: 112
\end{itemize}

2. \textbf{HAZARDS IDENTIFICATION}

2.1 \textbf{Classification of the substance or mixture}

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 \textbf{Label elements}

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 \textbf{Other hazards} - none

3. \textbf{COMPOSITION/INFORMATION ON INGREDIENTS}

3.1 \textbf{Substances}

\begin{itemize}
    \item \textbf{Synonyms}: 4-Methyl-2-oxopentanoic acidsodium salt
    \item 4-Methyl-2-oxovaleric acidsodium salt
    \item Ketoleucinesodium salt
    \item α-Ketoisocaproic acidsodium salt
\end{itemize}

\begin{itemize}
    \item \textbf{Formula}: C$_6$H$_9$NaO$_3$
    \item \textbf{Molecular Weight}: 152.12 g/mol
\end{itemize}

4. \textbf{FIRST AID MEASURES}

4.1 \textbf{Description of first aid measures}

\begin{itemize}
    \item \textbf{If inhaled}
    \item If breathed in, move person into fresh air. If not breathing, give artificial respiration.
\end{itemize}
In case of skin contact
Wash off with soap and plenty of water.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed
no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Sodium oxides

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information
no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: 2 - 8 °C

7.3 Specific end uses
no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters

8.2 Exposure controls
Appropriate engineering controls
General industrial hygiene practice.
Personal protective equipment

**Eye/face protection**
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place,. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 **Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Appearance</td>
<td>Form: solid</td>
</tr>
<tr>
<td>b) Odour</td>
<td>no data available</td>
</tr>
<tr>
<td>c) Odour Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>d) pH</td>
<td>no data available</td>
</tr>
<tr>
<td>e) Melting point/freezing point</td>
<td>Melting point/range: 275 °C</td>
</tr>
<tr>
<td>f) Initial boiling point and boiling range</td>
<td>no data available</td>
</tr>
<tr>
<td>g) Flash point</td>
<td>no data available</td>
</tr>
<tr>
<td>h) Evaporation rate</td>
<td>no data available</td>
</tr>
<tr>
<td>i) Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>j) Upper/lower flammability or explosive limits</td>
<td>no data available</td>
</tr>
<tr>
<td>k) Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>l) Vapour density</td>
<td>no data available</td>
</tr>
<tr>
<td>m) Relative density</td>
<td>no data available</td>
</tr>
<tr>
<td>n) Water solubility</td>
<td>no data available</td>
</tr>
<tr>
<td>o) Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>p) Autoignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>q) Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>r) Viscosity</td>
<td>no data available</td>
</tr>
<tr>
<td>s) Explosive properties</td>
<td>no data available</td>
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</tbody>
</table>
9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY
10.1 Reactivity
no data available
10.2 Chemical stability
no data available
10.3 Possibility of hazardous reactions
no data available
10.4 Conditions to avoid
no data available
10.5 Incompatible materials
Strong oxidizing agents
10.6 Hazardous decomposition products
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION
11.1 Information on toxicological effects
Acute toxicity
no data available
Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
no data available
Respiratory or skin sensitization
no data available
Germ cell mutagenicity
no data available
Carcinogenicity
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.
Reproductive toxicity
no data available
Specific target organ toxicity - single exposure
no data available
Specific target organ toxicity - repeated exposure
no data available
Aspiration hazard
no data available
Potential health effects
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Additional Information
RTECS: Not available
12. ECOLOGICAL INFORMATION

12.1 Toxicity
    no data available

12.2 Persistence and degradability
    no data available

12.3 Bioaccumulative potential
    no data available

12.4 Mobility in soil
    no data available

12.5 Results of PBT and vPvB assessment
    no data available

12.6 Other adverse effects
    no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
    Product
    Offer surplus and non-recyclable solutions to a licensed disposal company.

    Contaminated packaging
    Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number
    ADR/RID: -  IMDG: -  IATA: -

14.2 UN proper shipping name
    ADR/RID: Not dangerous goods
    IMDG: Not dangerous goods
    IATA: Not dangerous goods

14.3 Transport hazard class(es)
    ADR/RID: -  IMDG: -  IATA: -

14.4 Packaging group
    ADR/RID: -  IMDG: -  IATA: -

14.5 Environmental hazards
    ADR/RID: no  IMDG Marine pollutant: no  IATA: no

14.6 Special precautions for user
    no data available

15. REGULATORY INFORMATION

    This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
    no data available

15.2 Chemical Safety Assessment
    no data available

16. OTHER INFORMATION

    Further information
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