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| CARL HOERNECKE chem. Fabrik GmbH & Co. KG | | +49(0)7062/94960 |
| Material Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) | | Page 1 of 8 |
| Original TW1000 Pepper Fog | | |
| Revision Date: 06.03.12 | | Issue Date: 06.03.12 |
| Version. 2.0 | | Replaces Version: 1 |

| 1. Identification of the substance/preparation and company | |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | Product identifier Trade Name: Original TW1000 Pepper Fog Lady 20ml Item-No: 103I-2 |
| 1.2 | Relevant identified use of the Product: Pepperspray for alarm-system |
| 1.3 | Details of the supplier of the safety data sheet: Manufacturer CARL HOERNECKE Chem. Fabrik GmbH & Co. KG Street Industriestr. 26 Postal code / City DE - 71720 Oberstenfeld Telephone/Telefax +49 (0) 7062-9496-0 / +49 (0) 7062-9496-44 E-mail (competent person) sicherheitsdatenblatt@hoernecke.de |
| 1.4 | Emergency Telephone Number +49 7062 9496-0 (8:00a.m. – 4:00p.m.) |

| 2. Hazards identification | |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1 | Classification of the substance or mixture: This mixture is classified as hazardous according to 1999/45/EC. R12 Extremely flammable, R36/37/38 Irritating to eyes, respiratory system and skin. |
| 2.2. | Label Elements 1999/45/EC <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  F+ Hochentzündlich </div> <div style="text-align: center;">  Xi Reizend </div> </div> |
| 2.3. | Other hazards Pressurized container, protect from sunlight and do not expose to temperatures exceeding 50° C (120°F). Do not pierce or burn, even after use. |

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| 3. | Composition/information on ingredients | | | | |
|-----|------------------------------------------------------|--------------------|---------|-----------|---------------|
| 3.2 | Mixture | | | | |
| | Hazardous components: | | | | |
| | CAS | Substance | Symbols | R-phrases | Concentration |
| | 67-63-0 | Propan-2-ol | F, Xi | R11-36-67 | 20-50% |
| | 84625-29-6 | Oleoresin Capsicum | Xn | R22-36/38 | 1-15% |
| | Full text of R-, H- and EUH-phrases: see section 16. | | | | |

| 4. First aid measures | |
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| 4.1 | Description of first aid measures General information Take off immediately all contaminated, soaked clothing. In case of inhalation Remove casualty to fresh air and keep at rest. In case of constant complaints seek medical advise. In case of skin contact Wash away thoroughly with large amounts of cold water and soap. Do not apply cremes or ointments. In case of constant complaints seek medical advise. In case of eye contact Remove contact lenses, if possible. Irrigate with plenty of water for 10 –15 minutes. In case of constant complaints seek medical advise. In case of ingestion Rinse mouth with water. Ingest water (1 - 2 glass) If you feel unwell seek medical advise. |
| 4.2 | Most important Symptoms and effects, both acute and delayed. Irritation of eyes, respiratory system and skin. |
| 4.3 | Indication of any immediately medical attention and special treatment needed No data available |

| 5. Firefighting measures | |
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| 5.1 | extinguishing media Suitable extinguishing media Water mist, dry extinguishing media, foam, carbon dioxide (CO ₂) Unsuitable extinguishing media because of safety reason Full water jet |
| 5.2 | Special hazards arising from the substance or mixture Development of hazardous combustion gases or vapours possible in the event of fire: Carbon monoxide, Nitrogen oxides (NO _x), Sulphur oxides |
| 5.3 | Advice for fire-fighters In case of fire: Wear self-contained breathing apparatus. Wear suitable protective clothes. Use water spray jet to protect and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. |

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| 6. Accidental release measures | |
| 6.1 | Personal precautions, protective equipment and emergency procedures Provide adequate ventilation. Remove all sources of ignition. No Smoking. Avoid skin and eye contact. Do not breath vapours and aerosols. In case of release in large amounts (several spray cans) additionally use personal protection equipment (see section 8). |
| 6.2 | Environmental precautions Contain liquid in case of release of large amounts. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. |
| 6.3 | Methods an material for containment and cleaning In case of release of aerosol/gas provide adequate ventilation. Active agent / liquid: Suitable material for taking up: universal binding agent, Kieselguhr Treat the recovered material as prescribed in the section on waste disposal.. Clean contaminated areas with household detergent. |

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| 7. Handling and Storage | |
| 7.1 | Precautions for safe handling Attend the minimum distance of 1 meter. Do not spray towards opposing wind. Keep out of the reach of children. Advice on protection against fire and explosion Protect from sunlight and do not expose to temperatures exceeding 50° C (120°F). Do not pierce or burn, even after use. Do not spay on a naked flame or any incandescent material. Keep away from sources of ignition – no smoking. |
| 7.2 | Conditions for safe storage, including any incompatibilities Requirements for storage room and containers Store in original containers in a well ventilated, dry and cool place. Protect from sunlight. Respect local special regulations for storage of aerosols. Hints on joint storage Do not store with: explosives; flammable solid substances; self igniting substances; substances that my produce flammable gas in contact with water; oxidizing substances; organic peroxides, self-reactive substances; infectious substances; radio active substances Further information on storage conditions Recommended storage temperature: 5°C to 25°C (41°F - 77°F) Keep away from any kind of food. |
| 7.3 | Specific end uses Pepperspray for alarm-system |

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| 8. Exposure controls / Personal protection | |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.1 | Control parameters n.a. |
| 8.2 | Suitable technical control equipment n.a. Personal protection equipment If used correctly no special measures are necessary. In case of accidental release we suggest: Respiratory protection Filtering device (full mask or mouthpiece) with filter: A2P2 Hand protection Protective gloves Material: Butyl caoutchouc (butyl rubber) Eye protection Protective goggles or respiratory protection full mask. Environment exposure control measures n.a. |

| 9. Physical and chemical Properties | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 9.1 | Information on basic physical and chemical properties <table> <tr> <td>Appearance:</td><td>Aerosol</td></tr> <tr> <td>Colour:</td><td>red-brown</td></tr> <tr> <td>Odour:</td><td>pepper typical</td></tr> </table> <table> <tr> <td>Safety parameters</td><td></td></tr> <tr> <td>pH</td><td>n.a.</td></tr> <tr> <td>Boiling point</td><td>not determined</td></tr> <tr> <td>Flashpoint</td><td>< 21°C (69,8°F)</td></tr> <tr> <td>Flammability</td><td>extremely flammable</td></tr> <tr> <td>Danger of explosion</td><td>Product is not explosive. However, formation of explosive air/ vapour mixtures are possible</td></tr> <tr> <td>Explosion limit [Vol, %]</td><td>LEL: not determined</td></tr> <tr> <td></td><td>UEL: not determined</td></tr> <tr> <td>Pressure in can</td><td>ca. 5 bar (20°C)</td></tr> <tr> <td>Specific gravitiy</td><td>ca.0,7 g/cm3 (20°C)</td></tr> <tr> <td>Solubility</td><td>not determined</td></tr> <tr> <td>partition coefficient (POW)</td><td>not determined</td></tr> <tr> <td>viscosity</td><td>n.a.</td></tr> </table> | Appearance: | Aerosol | Colour: | red-brown | Odour: | pepper typical | Safety parameters | | pH | n.a. | Boiling point | not determined | Flashpoint | < 21°C (69,8°F) | Flammability | extremely flammable | Danger of explosion | Product is not explosive. However, formation of explosive air/ vapour mixtures are possible | Explosion limit [Vol, %] | LEL: not determined | | UEL: not determined | Pressure in can | ca. 5 bar (20°C) | Specific gravitiy | ca.0,7 g/cm3 (20°C) | Solubility | not determined | partition coefficient (POW) | not determined | viscosity | n.a. |
| Appearance: | Aerosol | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Colour: | red-brown | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Odour: | pepper typical | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Safety parameters | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH | n.a. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boiling point | not determined | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flashpoint | < 21°C (69,8°F) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flammability | extremely flammable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Danger of explosion | Product is not explosive. However, formation of explosive air/ vapour mixtures are possible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Explosion limit [Vol, %] | LEL: not determined | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | UEL: not determined | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pressure in can | ca. 5 bar (20°C) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Specific gravitiy | ca.0,7 g/cm3 (20°C) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solubility | not determined | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| partition coefficient (POW) | not determined | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| viscosity | n.a. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9.2 | Other information None known | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| 10. Stability and Reactivity | |
| 10.1 | Reactivity No data available |
| 10.2 | Chemical stability The product is chemically stable. Observe expiry date |
| 10.3 | Possibility of hazardous reactions No decomposition if stored and applied as directed |
| 10.4 | Conditions to avoid Heat, flames and sparks |
| 10.5 | Incompatible materials None known |
| 10.6 | Hazardous decomposition products No data available |

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| 11. Toxicological information | |
| 11.1 | Information on toxicological effects Acute toxicity Propan-2-ol, CAS-Nr 67-63-0 LC ₅₀ (inhalativ, rat) 47,5 mg/l/8h LD ₅₀ (oral, rat) 5.280 mg/kg LD ₅₀ (dermal, rabbit) 12.800 mg/kg Oeloresin Capsicum, CAS-Nr 84625-29-6 Capsaicin LD ₅₀ (oral) 160 mg/kg Irritation Irritating to eyes, respiratory system and skin. Corrosion No data available. Sensitization No data available. Toxicity – repeated exposure No data available. Carcinogenicity No data available. Mutagenicity No data available. Reproductive toxicity No data available. Further information No tests have been carried out with the product. Classification has been carried out in accordance with the conventional method. |

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| 12. Ecological information | |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12.1 | Toxicity Propan-2-ol, CAS-Nr 67-63-0 LC ₅₀ (fish, 96h) 9.640 mg/l EC ₅₀ (daphnia, 48h) 13.299 mg/l EC ₇₂ (algae, 72h) >1,000 mg/l EC ₁₀ (bacteria, 18h) 5.175 mg/l Oeloresin Capsicum, CAS-Nr 84625-29-6 No data available |
| 12.2 | Persistence and degradability Biological degradation Propan-2-ol, CAS-Nr 67-63-0 95% / 21d / method: OECD 301 E, therefore readily biodegradable Oeloresin Capsicum, CAS-Nr 84625-29-6 No data available |
| 12.3 | Bioaccumulative potential Propan-2-ol, CAS-Nr 67-63-0 No Bioaccumulation Oeloresin Capsicum, CAS-Nr 84625-29-6 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 consideration | | | | | |
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| 13.1 | Waste treatment methods Disposal in accordance with local and national regulations. Do not empty into drains; dispose of this material and its container in a safe way. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: <table> <tr> <td>Waste Code (EWC)</td><td> unused product 160504 gases in pressure containers (including halons) containing dangerous substances unused product 160504 gases in pressure containers (including halons) containing dangerous substances </td></tr> <tr> <td>Disposal of uncleaned Packaging</td><td> uncleaned packaging 150110 packaging containing residues of or contaminated by dangerous substances </td></tr> </table> | Waste Code (EWC) | unused product 160504 gases in pressure containers (including halons) containing dangerous substances unused product 160504 gases in pressure containers (including halons) containing dangerous substances | Disposal of uncleaned Packaging | uncleaned packaging 150110 packaging containing residues of or contaminated by dangerous substances |
| Waste Code (EWC) | unused product 160504 gases in pressure containers (including halons) containing dangerous substances unused product 160504 gases in pressure containers (including halons) containing dangerous substances | | | | |
| Disposal of uncleaned Packaging | uncleaned packaging 150110 packaging containing residues of or contaminated by dangerous substances | | | | |

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| 14. Transport information | |
| 14.1 | UN-Number: 1950 |
| 14.2 | Proper Shipping Name ADR/RID AEROSOLS, flammamable IMDG-Code Not defined ICAO-TI / IATA-DGR AEROSOLS, flammamable |
| 14.3 | Class / Classification code ADR/RID 2.1 / 5F „LQ2“ limited quantity ICAO-TI / IATA-DGR 2.1 Packing instr. 203 |
| 14.4 | Packing group No packing group is assigned to class 2 |
| 14.5 | Environmental hazardous ADR/RID / IMDG-Code / ICAO-TI / IATA-DGR: [] yes / [x] no Marine Pollutant: [] yes / [x] no |
| 14.6 | Special precautions for user See section 6 – 8 |
| 14.7 | Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code The product is not transported in bulk. |

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| 15. Regulatory information | |
| 15.1 | Safety, health and environmental regulations/legislation specific for the substance or mixture No data available. |
| 15.2 | Chemical Safety Assesment No data available. |

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| 16. | Other information | | | | | | | | |
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| | <p>Full text of R- and S-phrases</p> <p>R-phrases</p> <table> <tr> <td>R11</td><td>Highly flammable</td></tr> <tr> <td>R22</td><td>Harmful if swallowed.</td></tr> <tr> <td>R36/37/38</td><td>Irritating to eyes, respiratory system and skin.</td></tr> <tr> <td>R67</td><td>Vapours may cause drowsiness and dizziness.</td></tr> </table> <p>This information is based on our present state of knowledge. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.</p> | R11 | Highly flammable | R22 | Harmful if swallowed. | R36/37/38 | Irritating to eyes, respiratory system and skin. | R67 | Vapours may cause drowsiness and dizziness. |
| R11 | Highly flammable | | | | | | | | |
| R22 | Harmful if swallowed. | | | | | | | | |
| R36/37/38 | Irritating to eyes, respiratory system and skin. | | | | | | | | |
| R67 | Vapours may cause drowsiness and dizziness. | | | | | | | | |

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