



SAFETY DATA SHEET

1. Identification

Product identifier Perfect 10 Aerosol

Other means of identification

Product Code 114520

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Malco Products, Inc.
Address 361 Fairview Ave
Barberton, OH 44203
United States

Telephone Phone 800-253-2526
Fax 330-753-2025

Website www.malcopro.com

E-mail msdsinfo@malcopro.com

Contact person Technical Department

Emergency phone number Phone 1-800-424-9300

Supplier Not available.

Distributor in New Zealand:
Pacer - Car Clean Products NZ Ltd
33 Ha Crescent, Wiri, Auckland 2104 New Zealand
Phone: +64 9 25000 91
Fax: +64 9 25000 92
Email: sales@pacer.co.nz
Web: www.pacer.co.nz

24hr Emergency Assistance in New Zealand
National Poison Control Centre: 0800 POISON [764 766]

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1

Health hazards Skin corrosion/irritation Category 2

Reproductive toxicity Category 2

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated exposure Category 2

Environmental hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Pressurized container: May burst if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child. Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure. May cause an allergic skin reaction.

Precautionary statement

Prevention Obtain special instructions before use. Before use, obtain special instructions and learn how to work with these products safely. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not pierce or burn, even after use. Do not breathe gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Use only outdoors or in a well ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

| | |
|--------------------------|--|
| Response | IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical assistance if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Call a POISON CENTER/doctor. Specific treatment (see this label). If skin irritation occurs, obtain medical attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. |
| Storage | Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. |
| Disposal | Dispose of waste and residues in accordance with local authority requirements. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Other hazards | None known. |
| Supplemental information | None. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|-----------|
| Butane | | 106-97-8 | 40 - < 50 |
| N-hexane | | 110-54-3 | 20 - < 30 |
| Naphtha (Petroleum), Hydrotreated Light | | 64742-49-0 | 10 - < 20 |
| Cyclohexane | | 110-82-7 | < 1 |
| Heptane (N-heptane) | | 142-82-5 | < 1 |
| Other components below reportable levels | | | 20 - < 30 |

DSD: Directive 67/548/EEC.
CLP: Regulation No. 1272/2008.
#: This substance has been assigned Community workplace exposure limit(s).
M: M-factor
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret. All concentrations are in percent by weight (kg) unless ingredient is a gas. Gas concentrations are in percent by volume (l).
Composition comments The full text for all R- and H-phrases is displayed in section 16. The full text for all H-statements is displayed in section 16.

4. First-aid measures

| | |
|--|---|
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately. |
| Skin contact | Take off immediately all contaminated clothing. Wash the skin immediately with soap and water. Call a physician or poison control center immediately. Take off contaminated clothing and wash before reuse. For minor skin contact, avoid spreading material on unaffected skin. |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |
| Most important symptoms/effects, acute and delayed | Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Irritating to mouth, throat, and stomach. May cause respiratory irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Oxygen, if needed. Keep victim warm. Keep victim under observation. Symptoms may be delayed. |

General information

Take off contaminated clothing and shoes immediately. In case of shortness of breath, give oxygen. Immediate medical attention is required. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep victim under observation. Keep victim warm.

5. Fire-fighting measures

Suitable extinguishing media

Foam. Powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire. Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Use standard firefighting procedures and consider the hazards of other involved materials. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. In the event of fire and/or explosion do not breathe fumes.

General fire hazards

Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe gas. Avoid inhalation of vapors or mists. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Scoop up used absorbent into drums or other appropriate container. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Avoid release to the environment. Refer to special instructions/safety data sheets. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Vapors may form explosive mixtures with air. May be ignited by open flame. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid exposure - obtain special instructions before use. Do not breathe mist or vapor. Do not breathe gas. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using do not eat or drink. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in area provided with appropriate exhaust ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Avoid release to the environment. Do not empty into drains. Use appropriate container to avoid environmental contamination. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

CAUTION Level 3 Aerosol.

Keep locked up. Avoid exposure - obtain special instructions before use. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. The pressure in sealed containers can increase under the influence of heat. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Use appropriate container to avoid environmental contamination. Store in original tightly closed container. Store in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|------------------------------------|------|----------|
| Butane (CAS 106-97-8) | STEL | 1000 ppm |
| Cyclohexane (CAS 110-82-7) | TWA | 100 ppm |
| Heptane (N-heptane) (CAS 142-82-5) | STEL | 500 ppm |
| | TWA | 400 ppm |
| N-hexane (CAS 110-54-3) | TWA | 50 ppm |

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

| Components | Type | Value |
|------------------------------------|------|------------|
| Butane (CAS 106-97-8) | TWA | 1000 ppm |
| Cyclohexane (CAS 110-82-7) | TWA | 344 mg/m3 |
| | | 100 ppm |
| Heptane (N-heptane) (CAS 142-82-5) | STEL | 2050 mg/m3 |
| | | 500 ppm |
| | TWA | 1640 mg/m3 |
| | | 400 ppm |
| N-hexane (CAS 110-54-3) | TWA | 176 mg/m3 |
| | | 50 ppm |

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

| Components | Type | Value |
|------------------------------------|------|---------|
| Butane (CAS 106-97-8) | STEL | 750 ppm |
| | TWA | 600 ppm |
| Cyclohexane (CAS 110-82-7) | TWA | 100 ppm |
| Heptane (N-heptane) (CAS 142-82-5) | STEL | 500 ppm |
| | TWA | 400 ppm |

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

| Components | Type | Value |
|-------------------------|------|--------|
| N-hexane (CAS 110-54-3) | TWA | 20 ppm |

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

| Components | Type | Value |
|------------------------------------|------|----------|
| Butane (CAS 106-97-8) | STEL | 1000 ppm |
| Cyclohexane (CAS 110-82-7) | TWA | 100 ppm |
| Heptane (N-heptane) (CAS 142-82-5) | STEL | 500 ppm |
| | TWA | 400 ppm |
| N-hexane (CAS 110-54-3) | TWA | 50 ppm |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Components | Type | Value |
|------------------------------------|------|---------|
| Butane (CAS 106-97-8) | TWA | 800 ppm |
| Cyclohexane (CAS 110-82-7) | TWA | 100 ppm |
| Heptane (N-heptane) (CAS 142-82-5) | STEL | 500 ppm |
| | TWA | 400 ppm |
| N-hexane (CAS 110-54-3) | TWA | 50 ppm |

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

| Components | Type | Value |
|------------------------------------|------|-----------------------|
| Butane (CAS 106-97-8) | TWA | 1900 mg/m3 800 ppm |
| Cyclohexane (CAS 110-82-7) | TWA | 1030 mg/m3 300 ppm |
| Heptane (N-heptane) (CAS 142-82-5) | STEL | 2050 mg/m3 500 ppm |
| | TWA | 1640 mg/m3 400 ppm |
| N-hexane (CAS 110-54-3) | TWA | 176 mg/m3 50 ppm |

Biological limit values

ACGIH Biological Exposure Indices

| Components | Value | Determinant | Specimen | Sampling Time |
|-------------------------|----------|-------------------------------------|----------|---------------|
| N-hexane (CAS 110-54-3) | 0.4 mg/l | 2,5-Hexanedione, without hydrolysis | Urine | * |

* - For sampling details, please see the source document.

Exposure guidelines

Canada - Alberta OELs: Skin designation

N-hexane (CAS 110-54-3) Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

N-hexane (CAS 110-54-3) Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

N-hexane (CAS 110-54-3) Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

N-hexane (CAS 110-54-3) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

N-hexane (CAS 110-54-3) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

N-hexane (CAS 110-54-3) Can be absorbed through the skin.

| | | |
|---|---|-----------------------------------|
| US ACGIH Threshold Limit Values: Skin designation | | |
| N-hexane (CAS 110-54-3) | | Can be absorbed through the skin. |
| Appropriate engineering controls | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be available when handling this product. | |
| Individual protection measures, such as personal protective equipment | | |
| Eye/face protection | Avoid exposure - obtain special instructions before use. Face-shield. Avoid contact with eyes. Eye wash fountain is recommended. | |
| Skin protection | | |
| Hand protection | Avoid exposure - obtain special instructions before use. Wear appropriate chemical resistant gloves. | |
| Other | Avoid exposure - obtain special instructions before use. Avoid contact with the skin. Wear chemical protective equipment that is specifically recommended by the manufacturer. Use of an impervious apron is recommended. It may provide little or no thermal protection. | |
| Respiratory protection | Avoid exposure - obtain special instructions before use. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator. | |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. | |
| General hygiene considerations | When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. | |

9. Physical and chemical properties

| | | |
|--|--|--|
| Appearance | | |
| Physical state | Gas. | |
| Form | Gaseous. Aerosol. | |
| Color | Colorless | |
| Odor | Solvent. | |
| Odor threshold | Not available. | |
| pH | Not available. | |
| Melting point/freezing point | Not available. | |
| Initial boiling point and boiling range | Not available. | |
| Flash point | -156.0 °F (-104.4 °C) Propellant Estimated estimated | |
| Evaporation rate | Not available. | |
| Flammability (solid, gas) | Flammable gas. Not available. | |
| Upper/lower flammability or explosive limits | | |
| Explosive limit - lower (%) | Not available. | |
| Explosive limit - upper (%) | Not available. | |
| Vapor pressure | Not available. | |
| Vapor density | Not available. | |
| Relative density | 0.608 g/cm3 estimated | |
| Solubility(ies) | | |
| Solubility (water) | Not available. | |
| Auto-ignition temperature | Not available. | |
| Decomposition temperature | Not available. | |
| Viscosity | Not available. | |
| Other information | | |
| Density | 0.55 g/cm3 estimated | |
| Explosive properties | Not explosive. | |
| Oxidizing properties | Not oxidizing. | |
| Specific gravity | 0.61 estimated | |

10. Stability and reactivity

| | |
|------------------------------------|---|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Risk of explosion. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur. |
| Conditions to avoid | Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. Chlorine. Fluorine. Nitrates. Do not mix with other chemicals. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological information

Information on likely routes of exposure

| | |
|--------------|---|
| Inhalation | Harmful by inhalation. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting. |
| Skin contact | Very toxic in contact with skin. Causes skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Very toxic if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure. |

| | |
|--|--|
| Symptoms related to the physical, chemical and toxicological characteristics | Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Irritating to mouth, throat, and stomach. May cause respiratory irritation. Skin irritation. May cause redness and pain. |
|--|--|

Information on toxicological effects

| | |
|--|---|
| Acute toxicity | May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation. |
| Skin corrosion/irritation | Causes skin irritation. |
| Serious eye damage/eye irritation | Causes serious eye irritation. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not a respiratory sensitizer. Due to partial or complete lack of data the classification is not possible. |
| Skin sensitization | Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. This product is not expected to cause skin sensitization. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | Suspect cancer hazard. |
| Reproductive toxicity | Avoid exposure to women during early pregnancy. Mutagenic effects. Possible reproductive hazard. May cause reproductive system disorder and/or damage. Suspected of damaging fertility or the unborn child. |
| Specific target organ toxicity - single exposure | May cause respiratory irritation. May cause drowsiness and dizziness. |
| Specific target organ toxicity - repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | May be fatal if swallowed and enters airways. Not likely, due to the form of the product. Not an aspiration hazard. |
| Chronic effects | Not expected to be hazardous by WHMIS criteria. Hazardous by OSHA criteria. May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects. Danger of serious damage to health by prolonged exposure. |
| Further information | Symptoms may be delayed. |

12. Ecological information

Ecotoxicity

Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the environment. The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | Species | | Test Results |
|------------------------------------|---------|---|------------------------------|
| Cyclohexane (CAS 110-82-7) | | | |
| Aquatic | | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 23.03 - 42.07 mg/l, 96 hours |
| Heptane (N-heptane) (CAS 142-82-5) | | | |
| Aquatic | | | |
| Fish | LC50 | Mozambique tilapia (Tilapia mossambica) | 375 mg/l, 96 hours |
| N-hexane (CAS 110-54-3) | | | |
| Aquatic | | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 2.101 - 2.981 mg/l, 96 hours |

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

| Partition coefficient n-octanol / water (log Kow) | |
|---|------|
| Butane | 2.89 |
| Cyclohexane | 3.44 |
| Heptane (N-heptane) | 4.66 |
| N-hexane | 3.9 |

Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

| | |
|---------------------------------------|--|
| Disposal instructions | Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose of contents/container (in accordance with related regulations). When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused products | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Avoid discharge into water courses or onto the ground. |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. |

14. Transport information

TDG

Not regulated as dangerous goods.

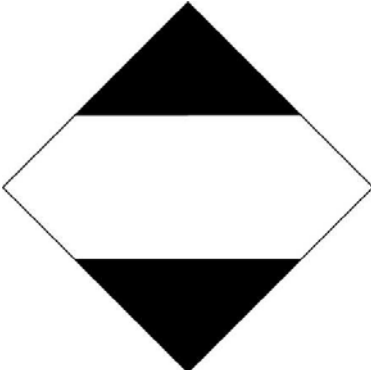
| | |
|----------------------------|---------------------------------------|
| IATA | |
| UN number | UN1950 |
| UN proper shipping name | Aerosols, flammable, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |

| | |
|--|---------------------------------------|
| Packing group | Not available. |
| Environmental hazards | No |
| Special precautions for user | Not available. |
| IMDG | |
| UN number | UN1950 |
| UN proper shipping name | Aerosols, flammable, Limited Quantity |
| Transport hazard class(es) | |
| Class | 2.1 |
| Subsidiary risk | - |
| Packing group | Not available. |
| Environmental hazards | |
| Marine pollutant | No. |
| EmS | Not available. |
| Special precautions for user | Not available. |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |

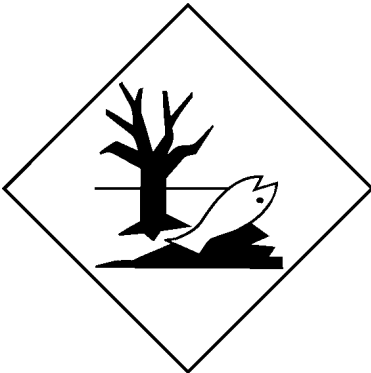
IATA



IMDG



Marine pollutant



General informationIMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant.

15. Regulatory information

| | |
|---|--|
| Canadian regulations | This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. |
| Controlled Drugs and Substances Act | |
| Not regulated. | |
| Export Control List (CEPA 1999, Schedule 3) | |
| Not listed. | |

| | | |
|--|--|-------------------------------|
| Greenhouse Gases | | |
| Not listed. | | |
| Precursor Control Regulations | | |
| Not regulated. | | |
| International regulations | The product is classified and labelled in accordance with EC directives or respective national laws. Pregnant women should not work with the product, if there is the least risk of exposure. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. Regulation (EU) No 453/2010 amending Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. | |
| Stockholm Convention | | |
| Not applicable. | | |
| Rotterdam Convention | | |
| Not applicable. | | |
| Kyoto protocol | | |
| Not applicable. | | |
| Montreal Protocol | | |
| Not applicable. | | |
| Basel Convention | | |
| Not applicable. | | |
| International Inventories | | |
| Country(s) or region | Inventory name | On inventory (yes/no)* |
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| Taiwan | Taiwan Toxic Chemical Substances (TCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |
| *A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s). | | |

16. Other information

| | |
|----------------------------|---|
| Issue date | 06-25-2018 |
| Revision date | 12-17-2019 |
| Version # | 05 |
| Further information | HMIS® is a registered trade and service mark of the NPCA. |

| |
|------------------------------------|
| NEW ZEALAND |
| Class 2.1.2A Flammable Aerosol |
| Class 6.3A Skin |
| Class 6.8B Reproductive |
| Class 6.9B Target Organ – Repeated |
| HSR002515 Aerosol (Flammable) |

References

ACGIH
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
EPA: AQUIRE database
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
Korea. Accidental Release Prevention Substances (Presidential Decree of Toxic Chemical Control Law, Executive Order No. 19203)
Korea. Dangerous Substances Threshold Quantity (Presidential Decree of Dangerous Substances Safety Management Act No. 18406, Schedule 1)
Korea. Harmful Substances Prohibited from Manufacturing (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 29)
Korea. Harmful Substances Requiring Permission for Manufacture or Use (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 30)
Korea. Non-Toxic Chemicals List (National Institute of Environment Research (NIER) Public Notice No. 1997-10, as amended)
Korea. Observational Chemicals (Ministerial Decree of TCCL Article 6)
Korea. OELs. Regulation for Permitted Concentration of Hazardous Substances (Ministry of Labor (MOL) Public Notice No. 1986-45, as amended)
Korea. Prohibited Chemical Substances (TCCL Article 11)
Korea. Regulated volatile organic compounds (VOCs) (MOE Notice No. 2001-36, March 8, 2001, as amended)
Korea. Restricted Chemical Substances (TCCL Article 11)
Korea. Toxic Chemical Control Law (TCCL), Existing Chemicals Inventory (KECI)
Korea. Toxic Chemical Control Law (TCCL), pre-1997 List
Korea. Toxic Chemicals (TCCL Article 10)
Korea. Toxic Release Inventory (TRI) Chemicals (TCCL Article 14)
Taiwan. Dangerous Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
Taiwan. Industrial Precursor Chemicals (Categories and Regulations Governing Inspection and Declaration of Industrial Precursor Chemicals, MOEA Decree No. 87, as amended)
Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)
Taiwan. Toxic Chemical Substances (TCS) (List of Toxic Chemical Substances announced by the Environmental Protection Administration)
Taiwan. Toxic Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits
Japan Chemical Industry Association (JCIA) GHS Guideline, June 2012
JIS Z 7252:2014 Classification of chemicals based on “Globally Harmonized System of Classification and Labelling of Chemicals (GHS)”
JIS Z 7253:2012 Hazard communication of chemicals based on GHS – Labelling and Safety Data Sheet (SDS)
GOST 30333-2007 Chemical production safety passport. General requirements.
GOST 31340-2013 Labeling of chemicals. General requirements.
GOST 32419-2013 Classification of chemical products. General requirements.
GOST 32424-2013 Classification of chemicals for environmental hazards. General principles.
GOST 12.1.007-76 Occupational safety standard system. Noxious substances. Classification and general safety requirements.
GOST 12.1.044-89. Occupational safety standards system. Fire and explosion hazard of substances and materials. Nomenclature of substances and materials. Nomenclature of indices and methods of their determination.
GOST 19433-88. Dangerous goods. Classification and marking.
GOST 12.1.004-91. Occupational safety standards system. Fire safety. General requirements.
GOST 32425-2013 Mixtures classification of hazard for environmental.
GOST 32423-2013 Mixtures classification of hazard for health.

Disclaimer

This safety data sheet was prepared in accordance with JIS Z 7253:2012. Additional information is given in the Material Safety Data Sheet. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Malco Products, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information

Hazard(s) identification: Hazard statement
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Transport Information: Material Transportation Information
GHS: Classification