



# Safety Data Sheet (SDS)

Date Prepared/Revised: 5/2/2016 Version no.: 04 Supersedes: (7/27/2015)

## 1. Identification of the Mixture and of the Company

Product identifier: **Aervoe Survey Marking Paint - Aerosol**

Product name: **Survey Marking Paint**

| Non-Fluorescent Colors                                                                                                                                                  | Fluorescent Colors                                                                         | High Delivery                     | Metallic   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------|------------|
| 201 Red<br>202 Yellow<br>203 Blue<br>204 Green<br>205 Orange<br>206 Black<br>207 White<br>208 Hi Visibility Yellow<br>209 Light Blue<br>212 Purple<br>280 Concrete Gray | 220 Red<br>222 Orange<br>224 Green<br>226 Yellow<br>227 Blue<br>229 Pink<br>230 Red/Orange | 281 Red<br>288 Fluorescent Orange | 210 Silver |

Relevant identified uses of the substance: Designed to adhere to most surfaces, including pavement, gravel, and soil.

Uses advised against: This aerosol product is designed to spray at an angle not greater than 30° from vertical. Do not use on turf surfaces.

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| CAS No:                     | <b>Not Applicable (mixture)</b>                   |
| EC No:                      | <b>Not Applicable (mixture)</b>                   |
| Index No:                   | <b>Not Applicable (mixture)</b>                   |
| Manufacturer/Supplier:      | <b>Aervoe Industries Incorporated</b>             |
| Street address/P.O. Box:    | <b>1100 Mark Circle</b>                           |
| Country ID/Postcode/Place   | <b>Gardnerville, Nevada 89410</b>                 |
| Telephone number:           | <b>001 (0) 1-775-782-0100</b>                     |
| e-mail:                     | <b>mailbox@aervoe.com</b>                         |
| National contact:           | <b>Aervoe industries Incorporated</b>             |
| For Product Information:    | <b>001 (0) 1-800-227-0196</b>                     |
| Emergency telephone number: | <b>001 (0) 1-800-424-9300 (CHEMTREC – 24 hrs)</b> |
|                             | <b>English Language Service</b>                   |

## 2. Hazards identification

### Classifications

Physical Hazards:

- Aerosol - Category 1
- Flam. Gas. 1
- Press. Gas
- Flam. Liq. 2
- Flam. Liq. 3 \* 210 Silver



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Health Hazards: Car 1B  
Muta 1B  
Asp Tox. 1  
Eye Irrit. - 2  
Rep. 2  
Skin Irr. 2  
STOT SE3  
STOT RE 2  
Acute Tox. 4 \* 280 Concrete Gray

Environmental Hazards: Aquatic Chronic 2

## Labeling

Signal Word: Danger

Hazard Statements: H220 – Extremely flammable gas  
H222 – Extremely flammable aerosol  
H225 – Highly flammable liquid and vapour.  
H226 – Flammable liquid and vapour.  
H229 - Pressurized container: may burst if heated  
H304 – May be fatal if swallowed and enters airways.  
H312 – Harmful in contact with skin. \*280 Concrete Gray  
H315 – Causes skin irritation.  
H319 – Causes serious eye irritation.  
H332 – Harmful if inhaled. \* 280 Concrete Gray  
H336 – May cause drowsiness or dizziness.  
H340 – May cause genetic defects  
H350 – May cause cancer  
H361 – Suspected of damaging fertility or the unborn child .  
H373 – May cause damage to nervous system through prolonged or repeated exposure(Inhalation)  
H411 – Toxic to aquatic life with long lasting effects.

Precautionary Statements: P101 - If medical advice is needed, have product container or label at hand  
P102 - Keep out of reach of children  
P103 - Read label before use  
P210 - Keep away from heat/sparks/open flames/hot surfaces - no smoking  
P211 - Do not spray on an open flame or other ignition source  
P251 - Pressurized container: Do not pierce or burn, even after use  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
P262 - Do not get in eyes, on skin, or on clothing  
P264 - Wash ... thoroughly after handling  
P280 - Wear protective gloves/eye protection/face protection



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P303+P361+P353 - If on skin or hair, remove/takeoff immediately all contaminated clothing. Rinse skin with water/shower.

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F

P501 - Dispose of contents/container in accordance with local/regional/national/international regulation

Symbols/Pictograms:



## 3. Composition / Information on Ingredients

### Composition

| Chemical                                    | Synonyms        | CAS Number | EINECS Number | Weight Percent | Hazard Category                                                                                          | H-Code                                                       |
|---------------------------------------------|-----------------|------------|---------------|----------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Hydrocarbon Propellant                      | LPG             | 68476-86-8 | 270-705-8     | 10-30%         | Press. Gas<br>Flam. Gas 1<br>Carc. 1B<br>Muta. 1B                                                        | H220<br>H350<br>H340                                         |
| Hexane                                      | n-Hexane        | 110-54-3   | 203-777-6     | 5-10%          | Flam. Liq. 2<br>Repr. 2<br>Asp. Tox. 1<br>STOT RE 2 *<br>Skin Irrit. 2<br>STOT SE 3<br>Aquatic Chronic 2 | H225<br>H361f ***<br>H304<br>H373 **<br>H315<br>H336<br>H411 |
| Aliphatic Petroleum Distillates             | Solvent Naphtha | 64742-89-8 | 265-192-2     | 5-10%          | Carc. 1B<br>Muta. 1B<br>Asp. Tox. 1                                                                      | H350<br>H340<br>H304                                         |
| Aliphatic Petroleum Distillates             | Solvent Naphtha | 64742-88-7 | 265-191-7     | 1-5%           | Asp. Tox. 1                                                                                              | H304                                                         |
| Aliphatic Petroleum Distillates             | Solvent Naphtha | 8032-32-4  | 232-453-7     | 1-5%           | Carc. 1B<br>Muta. 1B<br>Asp. Tox. 1                                                                      | H350<br>H340<br>H304                                         |
| <b>Non-fluorescent colors also contain:</b> |                 |            |               |                |                                                                                                          |                                                              |
| Acetone                                     | Propanone       | 67-64-1    | 200-662-2     | 1-5%           | Flam. Liq. 2<br>Eye Irrit. 2                                                                             | H225,<br>H319,                                               |



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|                                    |                      |            |           |        |                                                                                                          |                                                              |
|------------------------------------|----------------------|------------|-----------|--------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
|                                    |                      |            |           |        | STOT SE 3                                                                                                | H336                                                         |
| Aliphatic Petroleum Distillates    | Solvent Naphtha      | 8052-41-3  | 232-489-3 | 1-5%   | Carc. 1B<br>Muta. 1B<br>Asp. Tox. 1                                                                      | H350<br>H340<br>H304                                         |
| <b>210 silver contains:</b>        |                      |            |           |        |                                                                                                          |                                                              |
| Hydrocarbon Propellant             | LPG                  | 68476-86-8 | 270-705-8 | 10-30% | Press. Gas<br>Flam. Gas 1<br>Carc. 1B<br>Muta. 1B                                                        | H220<br>H350<br>H340                                         |
| Acetone                            | Propanone            | 67-64-1    | 200-662-2 | 30-60% | Flam. Liq. 2<br>Eye Irrit. 2<br>STOT SE 3                                                                | H225,<br>H319,<br>H336                                       |
| Aliphatic Petroleum Distillates    | Solvent Naphtha      | 8052-41-3  | 232-489-3 | 1-5%   | Carc. 1B<br>Muta. 1B<br>Asp. Tox. 1                                                                      | H350<br>H340<br>H304                                         |
| n-Butyl Acetate                    | n-Butyl Ester        | 123-86-4   | 204-658-1 | 1-5%   | Flam. Liq. 3<br>STOT SE 3                                                                                | H226<br>H336                                                 |
| Aliphatic Petroleum Distillates    | Solvent Naphtha      | 64742-89-8 | 265-192-2 | 10-30% | Carc. 1B<br>Muta. 1B<br>Asp. Tox. 1                                                                      | H350<br>H340<br>H304                                         |
| Aliphatic Petroleum Distillates    | Solvent Naphtha      | 64742-88-7 | 265-191-7 | 7-13%  | Asp. Tox. 1                                                                                              | H304                                                         |
| <b>280 Concrete Gray contains:</b> |                      |            |           |        |                                                                                                          |                                                              |
| Hydrocarbon Propellant             | LPG                  | 68476-86-8 | 270-705-8 | 10-30% | Press. Gas<br>Flam. Gas 1<br>Carc. 1B<br>Muta. 1B                                                        | H220<br>H350<br>H340                                         |
| Hexane                             | n-Hexane             | 110-54-3   | 203-777-6 | 5-10%  | Flam. Liq. 2<br>Repr. 2<br>Asp. Tox. 1<br>STOT RE 2 *<br>Skin Irrit. 2<br>STOT SE 3<br>Aquatic Chronic 2 | H225<br>H361f ***<br>H304<br>H373 **<br>H315<br>H336<br>H411 |
| Aliphatic Petroleum Distillates    | Solvent Naphtha      | 64742-89-8 | 265-192-2 | 5-10%  | Carc. 1B<br>Muta. 1B<br>Asp. Tox. 1                                                                      | H350<br>H340<br>H304                                         |
| n-Butyl Acetate                    | n-Butyl Ester        | 123-86-4   | 204-658-1 | 1-5%   | Flam. Liq. 3<br>STOT SE 3                                                                                | H226<br>H336                                                 |
| Acetone                            | Propanone            | 67-64-1    | 200-662-2 | 1-5%   | Flam. Liq. 2<br>Eye Irrit. 2<br>STOT SE 3                                                                | H225,<br>H319,<br>H336                                       |
| Ethyl Acetate                      | Ethanoate            | 141-78-6   | 205-500-4 | 1-5%   | Flam. Liq. 2<br>Eye Irrit. 2<br>STOT SE 3                                                                | H225<br>H319<br>H336                                         |
| 2-Butoxyethyl Acetate              | Butyl Glycol Acetate | 112-07-2   | 203-933-3 | 1-5%   | Acute Tox. 4 *<br>Acute Tox. 4 *                                                                         | H332<br>H312                                                 |

## Other Product Information

Chemical Identity: Mixture



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## 4.) First Aid Measures

|                                         |                                                                                                                                                                                             |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Advice:</b>                  | If symptoms persist, always call a doctor.                                                                                                                                                  |
| <b>Inhalation First Aid:</b>            | Remove victim to fresh air and provide oxygen if breathing is difficult. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention immediately.       |
| <b>Skin Contact First Aid:</b>          | Wash with soap and water. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.                                                            |
| <b>Eye Contact First Aid:</b>           | If contact with eyes, immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids open. Get medical attention immediately.                                   |
| <b>Ingestion First Aid:</b>             | If swallowed, wash out mouth with water provided the person is conscious. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately. |
| <b>Most Important Symptoms/Effects:</b> | Exposure may cause slight irritation to the skin, eyes, and respiratory tract. Excessive exposure may cause central nervous system effects.                                                 |

## 5. Fire Fighting Measures

|                                                        |                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammable Properties:                                  | Aerosol                                                                                                                                                                                                                                                                                     |
| Auto Ignition Temperature:                             | Not Available                                                                                                                                                                                                                                                                               |
| Suitable extinguishing media:                          | Carbon dioxide, dry chemical, water spray.                                                                                                                                                                                                                                                  |
| Unsuitable extinguishing media:                        | None known                                                                                                                                                                                                                                                                                  |
| Special hazards arising from the substance or mixture: | None known                                                                                                                                                                                                                                                                                  |
| Hazardous combustion products:                         | Carbon dioxide, Carbon monoxide                                                                                                                                                                                                                                                             |
| Fire & Explosion Hazards:                              | Closed Containers may rupture due to the buildup of pressure from extreme temperatures.                                                                                                                                                                                                     |
| Precautions for fire-fighters:                         | Use water spray to cool containers exposed to heat or fire to prevent pressure build up. In the event of a fire, wear full protective clothing and NIOSH- approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. |

## 6. Accidental Release Measures

### PERSONAL PRECAUTIONARY MEASURES:

- 1) Follow personal protective equipment recommendations found in section 8.
- 2) Maintain adequate ventilation.

### SPILL CLEAN-UP PROCEDURES:

- 1.) Evacuate unprotected personnel from the area.



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- 2.) Remove sources of ignition if safe to do so.
- 3.) Pickup spilled materials using non-sparking tools and place in an appropriate container for disposal.
- 4.) Contain spill to prevent material from entering sewage or ground water systems.
- 5.) Always dispose of waste materials in accordance with all EU, National and Local Regulations.

## 7. Handling and Storage

### Handling:

Flammable Aerosol, use in a well ventilated area.  
Do not use near sources of ignition.  
Do not to eat, drink and smoke while working with this material.  
Wash hands after use.

### Conditions for safe storage, including any incompatibilities:

Store out of direct sunlight.  
Storage Temperature: 32° to 120°F (0° to 49°C).  
No known incompatibilities.

## 8. Exposure Controls / Personal Protection

### Appropriate engineering controls:

Ensure adequate ventilation. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits.  
Keep away from sources of ignition.  
Take precautionary measures against static discharge.

### Personal Protection:

Eye & face protection devices such as safety glasses, safety goggles or face shield are recommended.

### Skin protection

Wear the appropriate protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### Respiratory protection:

Use only in an adequately ventilated area. For unknown vapor concentrations use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA).

| Hazardous Ingredient            | CAS Number | ACGIH TLV (TWA) | ACGIH TLV (STEL) | OSHA PEL (TWA) | OSHA PEL (STEL) |
|---------------------------------|------------|-----------------|------------------|----------------|-----------------|
| Aliphatic Petroleum Distillates | 64742-88-7 | N/AV            | N/AV             | N/AV           | N/AV            |
| Aliphatic Petroleum Distillates | 64742-89-8 | N/AV            | N/AV             | N/AV           | N/AV            |
| Hydrocarbon Propellant          | 68476-86-8 | N/AV            | N/AV             | N/AV           | N/AV            |
| Aliphatic Petroleum Distillates | 8032-32-4  | 200ppm          | 300ppm           | 200ppm         | N/AV            |
| Hexane                          | 110-54-3   | 50ppm           | N/AV             | 500ppm         | N/AV            |
| Acetone                         | 67-64-1    | 500ppm          | 750ppm           | 1000ppm        | N/AV            |
| Aliphatic Hydrocarbon           | 8052-41-3  | 100ppm          | N/AV             | 500ppm         | N/AV            |



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|                                 |            |        |        |        |      |
|---------------------------------|------------|--------|--------|--------|------|
| n-Butyl Acetate                 | 123-86-4   | 150ppm | 200ppm | 150ppm | N/AV |
| Aliphatic Petroleum Distillates | 64742-47-8 | N/AV   | N/AV   | N/AV   | N/AV |
| Ethyl Acetate                   | 141-78-6   | 400ppm | N/AV   | 400ppm | N/AV |
| 2-Butoxyethyl Acetate           | 112-07-2   | 20ppm  | N/AV   | N/AV   | N/AV |

**\*Values are based on the 2014 Guide to Occupational Exposure Values by ACGIH**

## 9. Information on Basic Physical and Chemical Properties

|                                                  |                                               |
|--------------------------------------------------|-----------------------------------------------|
| Appearance: Color varies by product.             | Odor: Hydrocarbon Odor                        |
| Odor Threshold: N/AV                             | pH: Not Applicable (solvent Base)             |
| Melting Point: N/AV                              | Freezing Point: N/AV                          |
| Initial Boiling Point: N/AV                      | Boiling Point Range: N/AV                     |
| Flash Point: <0° F (-18° C)                      | Evaporation Rate: Faster than n-Butyl Acetate |
| Flammability Solid/Gas: Flammable gas            | Upper LEL: 1% Lower LEL: 13%                  |
| Vapor Pressure: N/AV                             | Vapor Density: Heavier Than Air               |
| Relative Density: N/AV                           | Solubility: Negligible                        |
| Partition Coefficient:<br>n-octanol/ water: N/AV | Auto-ignition Temperature: N/AV               |
| Decomposition Temperature: N/AV                  | Viscosity: N/AV                               |
| Explosive Properties: N/AV                       | Oxidizing Properties: N/AV                    |

## 10. Stability & Reactivity

Possibility of hazardous reactions: Hazardous polymerization will not occur under normal conditions  
Chemical stability: Stable under normal conditions  
Conditions to avoid: Heat and ignition sources  
Incompatible materials: Strong Oxidizing Agents  
Hazardous decomposition products: Will not occur

## 11. Toxicological Information

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. Repeated overexposure can also damage kidneys, lungs, liver, heart and blood

Routes of exposure: Eyes, skin, ingestion, and/or inhalation

Acute toxicological data: (Acetone) Acute oral LD50: 5800mg/kg(rat)  
(Acetone) LC50: 21000 ppm / 8 hr (rat)  
(Hexane) LD50: 2870 mg/kg (Rat-Oral)  
Eye irritation data: N/AV

Skin irritation/sensitization/absorption data: N/AV



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Reproductive toxicity data: N/AV

Mutagenicity data: Muta 1B

Symptoms associated with physical contact: N/AV

Acute/chronic effects from short/long term exposure: Irritating to skin. Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis. Not expected to be a skin sensitizer.

Known reportable carcinogens via the following agencies:

NTP: N/AV  
IARC: IARC3:Classification not possible from current data  
OSHA: TLV-A4

\* Petroleum distillates may contain chemical carcinogens in limited quantities (< 0.01%). These quantities are determined by the supplier/fraction/purity of the distillate during the manufacturing process. Chemicals that may be present within distillates are listed on California's prop 65 list such as ETHYLBENZENE, BENZENE, and TOLUENE.

## 12. Ecological Information

Ecotoxicity: **No Data Available**  
Persistence and degradability: **No Data Available**  
Bioaccumulative potential: **No Data Available**  
Mobility in soil: **No Data Available**  
Results of PBT and vPvB assessment: **No Data Available**  
Other adverse effects: **No Data Available**

## 13. Disposal Considerations

**Waste Disposal:** Dispose of material in accordance with EU, national and local requirements. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or laws governing your location.  
**Product / Packaging disposal:** Dispose of packaging in accordance with federal, state and local requirements, regulations and/or laws governing your location.

## 14. Transportation Information

### US DOT

| UN Number | Proper Shipping Name | Hazard Class | Packing Group | Marine Pollutant | Special Provisions |
|-----------|----------------------|--------------|---------------|------------------|--------------------|
|-----------|----------------------|--------------|---------------|------------------|--------------------|



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|        |          |     |                |                |                          |
|--------|----------|-----|----------------|----------------|--------------------------|
| UN1950 | Aerosols | 2.1 | Not Applicable | Not Applicable | Reference 49 CFR 172.101 |
|--------|----------|-----|----------------|----------------|--------------------------|

## IMDG

| UN Number | Proper Shipping Name | Hazard Class | Packing Group  | Marine Pollutant | Special Provisions         |
|-----------|----------------------|--------------|----------------|------------------|----------------------------|
| UN1950    | Aerosols             | 2.1          | Not Applicable | Not Applicable   | Reference IMDG code part 3 |

## IATA:

| UN Number | Proper Shipping Name | Hazard Class | Packing Group  | Marine Pollutant | Special Provisions                        |
|-----------|----------------------|--------------|----------------|------------------|-------------------------------------------|
| UN1950    | Aerosols, Flammable  | 2.1          | Not Applicable | Not Applicable   | Reference IATA Dangerous Goods Regulation |

## 15. Regulatory Information

### Workplace classification:

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). The Occupational Safety and Health Administration's interpretation of the product's hazard to workers.

### SARA Title 3:

Section 311/312 Categorizations (40 CFR 372): This product is a hazardous chemical under 29 CFR 1910.1200, and is categorized as an immediate and delayed health, and flammability physical hazard. Superfund Amendment and Reauthorization Act (SARA) category. SARA requires reporting any spill of any hazardous substance.

**TSCA status:** All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

**WHMIS:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the (M)SDS contains all of the information required by the CPR.

**PROP 65 (CA): WARNING:** This product may contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

## 16. Other Information

This SDS has been completed in accordance with GHS Rev04 (2011): U.S OSHA, CMA, ANSI, Canadian WHMIS standards, and European Directives.

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To the best of our knowledge, the information contained herein is believed to be accurate. However, the above data does not imply any guarantee or warranty of any kind, expressed or implied. The final



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determination of the suitability of any material is the sole responsibility of the user. All materials made present un-known hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee these are the only hazards existing.