# Aerospray® PM Cleaning Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

## SECTION 1 Identification

### 1.1. Product identifier

Product form : Mixture
Product name : Aerospray® PM Cleaning Solution
Product code : SS-266

### 1.2. Other means of identification

No additional information available

### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemical
Recommended use : Professional use only

### 1.4. Supplier's details

ELITechGroup Inc.
370 West 1700 South
Logan, UT, Cache, 84321
USA
T +1 (435) 752-6011 - F +1 (435) 752-4127
qara_ebs@elitechgroup.com - www.elitechgroup.com

### 1.5. Emergency phone number

Emergency number : Contact your distributor or poison control center in your country.
InfoTrac Emergency Response: Calls within the USA, phone: 1-800-535-5053. Calls outside the USA, phone: +1 352-323-3500 (call collect)
Customer ID: #90104 (NOTE: this number is required when a customer calls into either phone number above).

## SECTION 2 Hazard Identification

### 2.1. Classification of the substance or mixture

#### GHS US classification

| | | |
|---|---|---|
| Flammable liquid, Category 3 | H226 | Flammable liquid and vapor. |
| Corrosive to metals, Category 1 | H290 | May be corrosive to metals. |
| Skin corrosion/irritation, Category 2 | H315 | Causes skin irritation. |
| Serious eye damage/eye irritation, Category 2 | H319 | Causes serious eye irritation. |

Full text of H statements : see section 16

### 2.2. Label elements

#### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H226 - Flammable liquid and vapor
H290 - May be corrosive to metals

| | | |
|---|---|---|
| | | H315 - Causes skin irritation<br>H319 - Causes serious eye irritation |
| Precautionary statements (GHS US) | : | P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.<br>P233 - Keep container tightly closed.<br>P234 - Keep only in original packaging.<br>P243 - Take action to prevent static discharges.<br>P264 - Wash hands thoroughly after handling.<br>P280 - Wear protective gloves, protective clothing, eye protection.<br>P302+P352 - If on skin: Wash with plenty of water.<br>P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P332+P313 - If skin irritation occurs: Get medical advice or attention.<br>P337+P313 - If eye irritation persists: Get medical advice or attention.<br>P362+P364 - Take off contaminated clothing and wash it before reuse.<br>P370+P378 - In case of fire: Use ABC-powder, alcohol resistant foam, BC-powder, carbon dioxide (CO2), D-powder to extinguish.<br>P390 - Absorb spillage to prevent material-damage.<br>P403+P235 - Store in a well-ventilated place. Keep cool.<br>P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations. |

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

No additional information available

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|---|---|---|---|
| ethanol | CAS-No.: 64-17-5 | 5 – 10 | Flam. Liq. 2, H225 |
| citric acid | CAS-No.: 77-92-9 | 1 – 5 | Skin Corr. 1, H314<br>STOT SE 3, H335 |

Full text of hazard classes and H-statements : see section 16

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

| | | |
|---|---|---|
| First-aid measures after inhalation | : | Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest. |
| First-aid measures after skin contact | : | Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : | Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center/doctor/physician if you feel unwell. |
| Personal protection for first-aid responders. | : | First-aiders should consider self-protection and use the recommended personal protective equipment (see section 8). |

### 4.2. Most important symptoms/effects, acute and delayed

| | | |
|---|---|---|
| Potential Adverse human health effects and symptoms | : | Based on available data, the classification criteria are not met. |
| Symptoms/effects after inhalation | : | None under normal conditions. |
| Symptoms/effects after skin contact | : | Causes skin irritation. Irritation. |
| Symptoms/effects after eye contact | : | Causes serious eye irritation. Eye irritation. |
| Symptoms/effects after ingestion | : | None under normal conditions. |

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

| | | |
|---|---|---|
| Other medical advice or treatment | : | Treat symptomatically. |

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

| | | |
|---|---|---|
| Suitable extinguishing media | : | ABC powder. Alcohol-resistant foam. BC powder. Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : | Do not use a heavy water stream. |

### 5.2. Specific hazards arising from the chemical

| | | |
|---|---|---|
| Fire hazard | : | Flammable liquid and vapor. |
| Explosion hazard | : | May form flammable/explosive vapor-air mixture. |
| Hazardous decomposition products in case of fire | : | Toxic fumes may be released. |

### 5.3. Special protective equipment and precautions for fire-fighters

| | | |
|---|---|---|
| Firefighting instructions | : | Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Do not enter fire area without proper protective equipment, including respiratory protection. |
| Protection during firefighting | : | Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

## SECTION 6 Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

| | | |
|---|---|---|
| General measures | : | Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |

**For non-emergency personnel**

| | | |
|---|---|---|
| Protective equipment | : | Wear recommended personal protective equipment. |

| | | |
|---|---|---|
| Emergency procedures | : | Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. |

**For emergency responders**

| | | |
|---|---|---|
| Protective equipment | : | Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : | Ventilate area. Evacuate unnecessary personnel. Stop leak if safe to do so. |
| Environmental precautions | : | Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. |

### 6.2. Methods and materials for containment and cleaning up

| | | |
|---|---|---|
| For containment | : | Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| Methods for cleaning up | : | Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters. |
| Other information | : | Dispose of materials or solid residues at an authorized site. |

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

## SECTION 7 Handling and storage

### 7.1. Precautions for safe handling

| | | |
|---|---|---|
| Precautions for safe handling | : | Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. |
| Hygiene measures | : | Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| Additional hazards when processed | : | Handle empty containers with care because residual vapors are flammable. |

### 7.2. Conditions for safe storage, including incompatibilities

| | | |
|---|---|---|
| Technical measures | : | Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. |
| Storage conditions | : | Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep only in original container. |
| Incompatible products | : | Strong bases. Strong acids. |
| Incompatible materials | : | Sources of ignition. Direct sunlight. Heat sources. Metals. |
| Packaging materials | : | Always store product in container of same material as original container. |

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

| ethanol (64-17-5) | |
|---|---|
| **USA - ACGIH® - Threshold Limit Values** | |
| Local name | Ethanol |
| ACGIH® TLV® STEL | 1880 mg/m³ |
| | 1000 ppm |
| Remark (ACGIH®) | URT irr |
| Regulatory reference | ACGIH 2025 |
| **USA - OSHA - Occupational Exposure Limits** | |
| Local name | Ethyl alcohol (Ethanol) |
| OSHA PEL TWA | 1900 mg/m³ |
| | 1000 ppm |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| **USA - NIOSH - Occupational Exposure Limits** | |
| NIOSH REL (TWA) | 1900 mg/m³ |
| | 1000 ppm |

## 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

## 8.3. Individual protection measures, such as personal protective equipment

**Personal protective equipment:**

Avoid all unnecessary exposure.

| **Materials for protective clothing:** |
|---|
| Wear protective clothing |

| **Hand protection:** | | | | |
|---|---|---|---|---|
| Wear protective gloves | | | | |
| **Type** | **Material** | **Permeation** | **Thickness (mm)** | **Penetration** |
| Disposable gloves | Latex, Nitrile rubber (NBR) | 3 (> 60 minutes) | 0.1 - 0.15 | |

| **Eye protection:** |
|---|
| Chemical goggles or safety glasses |

| **Skin and body protection:** |
|---|
| Wear suitable protective clothing |

| **Respiratory protection:** |
|---|
| Wear suitable respiratory equipment in case of insufficient ventilation |

**Personal protective equipment symbol(s):**



**Other information:**

Do not eat, drink or smoke during use.

## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Liquid |
| Color | : | Colorless |
| Odor | : | Characteristic |
| Odor threshold | : | No data available |
| pH | : | 2.2 (1.9 – 2.5) |
| Melting point | : | Not applicable |
| Freezing point | : | No data available |
| Boiling point | : | No data available |
| Flash point | : | ≈ 52.8 °C |
| Flammability (solid, gas) | : | Not applicable. |
| Vapor pressure | : | No data available |
| Relative vapor density at 20°C | : | No data available |
| Relative density | : | No data available |
| Density | : | < 1 |
| Solubility | : | Water: No data available |
| Partition coefficient n-octanol/water (Log Pow) | : | No data available |
| Auto-ignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity, kinematic | : | No data available |
| Explosion limits | : | No data available |
| Particle characteristics | : | No data available |

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10 Stability and reactivity

### 10.1. Reactivity

Flammable liquid and vapor.

### 10.2. Chemical stability

Flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Strong acids. Strong bases. metals.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

## SECTION 11 Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

| ethanol (64-17-5) | |
|---|---|
| LD50 oral rat | 7060 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 oral | 8300 mg/kg body weight Animal: mouse |
| LC50 Inhalation - Rat | 20000 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| ATE US (oral) | 7060 mg/kg body weight |
| ATE US (vapors) | 20000 mg/l/4h |
| ATE US (dust, mist) | 20000 mg/l/4h |

| citric acid (77-92-9) | |
|---|---|
| LD50 oral rat | 11700 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 7 day(s)) |
| LD50 dermal rat | > 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) |
| ATE US (oral) | 11700 mg/kg body weight |

Skin corrosion/irritation : Causes skin irritation.
pH: 2.2 (1.9 – 2.5)

| ethanol (64-17-5) | |
|---|---|
| pH | 7 (789 g/l, 20 °C) |

| citric acid (77-92-9) | |
|---|---|
| pH | 1.8 (5 %, 25 °C) |

Serious eye damage/irritation : Causes serious eye irritation.
pH: 2.2 (1.9 – 2.5)

| ethanol (64-17-5) | |
|---|---|
| pH | 7 (789 g/l, 20 °C) |

| citric acid (77-92-9) | |
|---|---|
| pH | 1.8 (5 %, 25 °C) |

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

| ethanol (64-17-5) | |
|---|---|
| IARC group | 1 - Carcinogenic to humans |

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

| citric acid (77-92-9) | |
|---|---|
| STOT-single exposure | May cause respiratory irritation. |



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STOT-repeated exposure : Not classified

| ethanol (64-17-5) | |
|---|---|
| NOAEL (subchronic,oral,animal/male,90 days) | < 9700 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents) |

| citric acid (77-92-9) | |
|---|---|
| LOAEL (oral,rat,90 days) | 8000 mg/kg body weight Animal: rat |
| NOAEL (oral,rat,90 days) | 4000 mg/kg body weight Animal: rat |

Aspiration hazard : Not classified

| ethanol (64-17-5) | |
|---|---|
| Viscosity, kinematic | 1.6 mm²/s (20 °C) |
| **citric acid (77-92-9)** | |
| Viscosity, kinematic | Not applicable (solid) |

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects after inhalation : None under normal conditions.

Symptoms/effects after skin contact : Causes skin irritation. Irritation.

Symptoms/effects after eye contact : Causes serious eye irritation. Eye irritation.

Symptoms/effects after ingestion : None under normal conditions.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

| ethanol (64-17-5) | |
|---|---|
| LC50 - Fish [1] | 13 mg/l (96 h, Salmo gairdneri, Pure substance) |
| EC50 - Crustacea [1] | 9300 mg/l (48 h, Daphnia magna, Pure substance) |
| EC50 72h - Algae [1] | 275 mg/l (Equivalent or similar to OECD 201, Chlorella vulgaris, Static system, Fresh water, Experimental value, Growth rate) |
| NOEC (chronic) | 9.6 mg/l Test organisms (species): Daphnia magna Duration: '9 d' |

| citric acid (77-92-9) | |
|---|---|
| LC50 - Fish [1] | 440 – 760 mg/l (Equivalent or similar to OECD 203, 48 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration) |

### 12.2. Persistence and degradability

| Aerospray® PM Cleaning Solution | |
|---|---|
| Persistence and degradability | Not established. |

| ethanol (64-17-5) | |
|---|---|
| Persistence and degradability | Biodegradable in the soil, Readily biodegradable in water. |

| ethanol (64-17-5) | |
|---|---|
| Biochemical oxygen demand (BOD) | 0.8 – 0.967 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 1.7 g $O_2$/g substance |
| ThOD | 2.1 g $O_2$/g substance |

| citric acid (77-92-9) | |
|---|---|
| Persistence and degradability | Biodegradable in the soil, Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.42 g $O_2$/g substance |
| Chemical oxygen demand (COD) | 0.728 g $O_2$/g substance |
| ThOD | 0.686 g $O_2$/g substance |

### 12.3. Bioaccumulative potential

| Aerospray® PM Cleaning Solution | |
|---|---|
| Bioaccumulative potential | Not established. |

| ethanol (64-17-5) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | -0.35 (Experimental value, Equivalent or similar to OECD 107, 24 °C) |
| Bioaccumulative potential | Not bioaccumulative. |

| citric acid (77-92-9) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | -1.8 – -1.55 (Experimental value) |
| Bioaccumulative potential | Not bioaccumulative. |

### 12.4. Mobility in soil

| ethanol (64-17-5) | |
|---|---|
| Surface tension | 22.31 mN/m (20 °C, 100 %) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.2 (log Koc, Experimental value) |
| Ecology - soil | Highly mobile in soil. |

| citric acid (77-92-9) | |
|---|---|
| Surface tension | No data available in the literature |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

### 12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

Other information : Avoid release to the environment.

## SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.

| | | |
|---|---|---|
| Waste treatment methods | : | Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : | Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : | Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Disposal must be done according to official regulations. |
| Additional information | : | Handle empty containers with care because residual vapors are flammable. Flammable vapors may accumulate in the container. Do not re-use empty containers. |
| Ecological waste information | : | Avoid release to the environment. |

## SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

### 14.1. UN number

| | | |
|---|---|---|
| UN-No. (DOT) | : | UN1170 |
| UN-No. (TDG) | : | Not regulated |
| UN-No. (IMDG) | : | 1170 |
| UN-No. (IATA) | : | 1170 |

### 14.2. UN Proper Shipping Name

| | | |
|---|---|---|
| Proper Shipping Name (DOT) | : | Ethanol solutions |
| Proper Shipping Name (TDG) | : | Not regulated |
| Proper Shipping Name (IMDG) | : | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) |
| Proper Shipping Name (IATA) | : | Ethanol solution |

### 14.3. Transport hazard class(es)

**DOT**

| | | |
|---|---|---|
| Transport hazard class(es) (DOT) | : | 3 |
| Hazard labels (DOT) | : | 3 |




**TDG**

| | | |
|---|---|---|
| Transport hazard class(es) (TDG) | : | Not regulated |

**IMDG**

| | | |
|---|---|---|
| Transport hazard class(es) (IMDG) | : | 3 |
| Hazard labels (IMDG) | : | 3 |




**IATA**

| | | |
|---|---|---|
| Transport hazard class(es) (IATA) | : | 3 |
| Hazard labels (IATA) | : | 3 |



## 14.4. Packing group

| | | |
|---|---|---|
| Packing group (DOT) | : | III |
| Packing group (TDG) | : | Not regulated |
| Packing group (IMDG) | : | III |
| Packing group (IATA) | : | III |

## 14.5. Environmental hazards

| | | |
|---|---|---|
| Other information | : | No supplementary information available. |

## 14.6. Transport in bulk

Not applicable

## 14.7. Special precautions for user

### DOT

| | | |
|---|---|---|
| UN-No. (DOT) | : | UN1170 |
| DOT Special Provisions (49 CFR 172.102) | : | 24 - Alcoholic beverages containing more than 70 percent alcohol by volume must be transported as materials in Packing Group II. Alcoholic beverages containing more than 24 percent but not more than 70 percent alcohol by volume must be transported as materials in Packing Group III.<br>B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.<br>IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).<br>T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3)<br>TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : | 4b;150 |
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : | 203 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : | 242 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : | 60 L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : | 220 L |
| DOT Vessel Stowage Location | : | A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel. |

### TDG

Not regulated

### IMDG

| | | |
|---|---|---|
| Special provision (IMDG) | : | 144, 223 |
| Limited quantities (IMDG) | : | 5 L |
| Excepted quantities (IMDG) | : | E1 |
| Packing instructions (IMDG) | : | P001, LP01 |
| IBC packing instructions (IMDG) | : | IBC03 |
| Tank instructions (IMDG) | : | T2 |
| Tank special provisions (IMDG) | : | TP1 |
| EmS-No. (Fire) | : | F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS |
| EmS-No. (Spillage) | : | S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS |
| Stowage category (IMDG) | : | A |



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| | | |
|---|---|---|
| Properties and observations (IMDG) | : | Colorless, volatile liquids. Pure ETHANOL: flashpoint 13°C c.c. Explosive limits: 3.3% to 19%. Miscible with water. |

**IATA**

| | | |
|---|---|---|
| Special provision (IATA) | : | A3, A58, A180 |
| PCA Excepted quantities (IATA) | : | E1 |
| PCA Limited quantities (IATA) | : | Y344 |
| PCA limited quantity max net quantity (IATA) | : | 10L |
| PCA packing instructions (IATA) | : | 355 |
| PCA max net quantity (IATA) | : | 60L |
| CAO packing instructions (IATA) | : | 366 |
| CAO max net quantity (IATA) | : | 220L |
| ERG code (IATA) | : | 3L |

## SECTION 15 Regulatory information

### 15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

### 15.2. International regulations

**CANADA**

**ethanol (64-17-5)**

Listed on the Canadian DSL (Domestic Substances List)

**citric acid (77-92-9)**

Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**

No additional information available

**National regulations**

**ethanol (64-17-5)**

Listed on IARC (International Agency for Research on Cancer)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

| Component | State or local regulations |
|---|---|
| ethanol(64-17-5) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16 Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Other information : None.

| Full text of hazard classes and H-statements | |
|---|---|
| H225 | Highly flammable liquid and vapor |
| H226 | Flammable liquid and vapor |
| H290 | May be corrosive to metals |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Reason for change: updating to latest format and company header logo.



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