Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
SPARKLING CLEAR

STATEMENT OF HAZARDOUS NATURE
Not considered a hazardous substance according to OSHA 29 CFR 1910.1200.

SUPPLIER
Company: Mars Fishcare North America Inc
Address:
50 East Hamilton Street
Chalfont
PA, 18914
USA
Telephone: +1 215 822 8181
Fax: +1 215 822 1906

PRODUCT USE
Used according to manufacturer’s directions. For product 67.

SYNONYMS
"Solution ID# 3365"

Section 2 - HAZARDS IDENTIFICATION

CANADIAN WHMIS SYMBOLS
None

EMERGENCY OVERVIEW

RISK

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED
The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (eg. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

EYE
Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

continued...
SKIN
The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

INHALED
The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product.

CHRONIC HEALTH EFFECTS
Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium sulfate</td>
<td>10043-01-3</td>
<td>&lt;10</td>
</tr>
<tr>
<td>water</td>
<td>7732-18-5</td>
<td>&gt;90</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

SWALLOWED
· Immediately give a glass of water.
· First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE
If this product comes in contact with eyes:
· Wash out immediately with water.
· If irritation continues, seek medical attention.
· Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN
If skin or hair contact occurs:
· Flush skin and hair with running water (and soap if available).
· Seek medical attention in event of irritation.

INHALED
· If fumes or combustion products are inhaled remove from contaminated area.
· Other measures are usually unnecessary.

NOTES TO PHYSICIAN
Treat symptomatically.
Section 5 - FIRE FIGHTING MEASURES

Flash Point (° F): Not Applicable
Lower Explosive Limit (%): Not Applicable
Upper Explosive Limit (%): Not Applicable
Autoignition Temp (° F): Not Applicable

EXTINGUISHING MEDIA
- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

FIRE FIGHTING
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS
- Non combustible.
- Not considered a significant fire risk, however containers may burn.
Decomposition may produce toxic fumes of: sulfur oxides (SOx), metal oxides.

FIRE INCOMPATIBILITY
None known.

PERSONAL PROTECTION
- Glasses: Chemical goggles.
- Gloves: When handling larger quantities: General purpose rubber glove.
- Respirator: Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable labelled container for waste disposal.

MAJOR SPILLS
Minor hazard.
- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment as required.
- Prevent spillage from entering drains or water ways.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite and place in appropriate
containers for disposal.
· Wash area and prevent runoff into drains or waterways.
· If contamination of drains or waterways occurs, advise emergency services.

**EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)**
The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:
water 500 mg/m³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:
water 500 mg/m³

other than mild, transient adverse effects without perceiving a clearly defined odour is:
water 500 mg/m³

The threshold concentration below which most people will experience no appreciable risk of health effects:
water 500 mg/m³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

<table>
<thead>
<tr>
<th>Classification</th>
<th>Cutoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Toxic (T+)</td>
<td>&gt;= 0.1%</td>
</tr>
<tr>
<td>Toxic (T)</td>
<td>&gt;= 3.0%</td>
</tr>
<tr>
<td>R50</td>
<td>&gt;= 0.25%</td>
</tr>
<tr>
<td>Corrosive (C)</td>
<td>&gt;= 5.0%</td>
</tr>
<tr>
<td>R51</td>
<td>&gt;= 2.5%</td>
</tr>
<tr>
<td>else</td>
<td>&gt;= 10%</td>
</tr>
</tbody>
</table>

where percentage is percentage of ingredient found in the mixture

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**Section 7 - HANDLING AND STORAGE**

**PROCEDURE FOR HANDLING**

· Limit all unnecessary personal contact.
· Wear protective clothing when risk of exposure occurs.
· Use in a well-ventilated area.
· Avoid contact with incompatible materials.
· When handling, DO NOT eat, drink or smoke.
· Keep containers securely sealed when not in use.
· Avoid physical damage to containers.
· Always wash hands with soap and water after handling.
· Work clothes should be laundered separately.
· Use good occupational work practice.
· Observe manufacturer's storing and handling recommendations.
· Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

**RECOMMENDED STORAGE METHODS**

· Polyethylene or polypropylene container.
· Packing as recommended by manufacturer.
· Check all containers are clearly labelled and free from leaks.

**STORAGE REQUIREMENTS**

· Store in original containers.
Section 7 - HANDLING AND STORAGE

- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer’s storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

<table>
<thead>
<tr>
<th>Source</th>
<th>Material</th>
<th>TWA mg/m³</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada - British Occupational Exposure Limits</td>
<td>aluminium sulfate (Aluminum - Soluble salts, as Al)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>US - Vermont Permissible Exposure Limits Table Z-1-A</td>
<td>aluminium sulfate (Aluminum (as Al) - Soluble salts)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Final Rule Limits for Air Contaminants</td>
<td>aluminium sulfate (Aluminum (as Al) - Soluble salts)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>US - Minnesota Permissible Exposure Limits (PELs)</td>
<td>aluminium sulfate (Aluminum (as Al) - Soluble salts)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits</td>
<td>aluminium sulfate (Aluminum, soluble salts, (as Al))</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>US - Washington Permissible exposure limits of air contaminants</td>
<td>aluminium sulfate (Aluminum (as Al) - Soluble salts)</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>US ACGIH Threshold Limit Values (TLV)</td>
<td>aluminium sulfate (Aluminum - Soluble salts (as Al))</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Canada - Ontario Occupational Exposure Limits</td>
<td>aluminium sulfate (Aluminum, water-soluble compounds of)</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

The following materials had no OELs on our records
- water: CAS:7732-18-5

MATERIAL DATA

Not available. Refer to individual constituents.

INGREDIENT DATA

ALUMINUM SULFATE:

The TLV is based on the exposures to aluminum chloride and the amount of hydrolyzed acid and the corresponding acid TLV to provide the same degree of freedom from irritation. Workers chronically exposed to aluminum dusts and fumes have developed severe pulmonary reactions including fibrosis, emphysema and pneumothorax. A much rarer encephalopathy has also been described.

WATER:

No exposure limits set by NOHSC or ACGIH.
PERSONAL PROTECTION

EYE
- Safety glasses with side shields
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET
Wear general protective gloves, eg. light weight rubber gloves.
Suitability and durability of glove type is dependent on usage. Factors such as:
- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity,
are important in the selection of gloves.

OTHER
No special equipment needed when handling small quantities.
OTHERWISE:
- Overalls.
- Barrier cream.
- Eyewash unit.

RESPIRATOR
Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

<table>
<thead>
<tr>
<th>Breathing Zone Level (ppm)</th>
<th>Maximum Protection Factor</th>
<th>Half- face Respirator</th>
<th>Full- Face Respirator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>10</td>
<td>- AUS</td>
<td>-</td>
</tr>
<tr>
<td>1000</td>
<td>50</td>
<td>-</td>
<td>- AUS</td>
</tr>
<tr>
<td>5000</td>
<td>50</td>
<td>Airline *</td>
<td>-</td>
</tr>
<tr>
<td>5000</td>
<td>100</td>
<td>-</td>
<td>- 2</td>
</tr>
<tr>
<td>10000</td>
<td>100</td>
<td>-</td>
<td>- 3</td>
</tr>
<tr>
<td>100+</td>
<td></td>
<td>Airline**</td>
<td></td>
</tr>
</tbody>
</table>

* - Continuous Flow       ** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.
Use appropriate NIOSH-certified respirator based on informed professional judgement. In conditions where no reasonable estimate of exposure can be made, assume the exposure is in a concentration IDLH and use NIOSH-certified full face pressure demand SCBA with a minimum service life of 30 minutes, or a combination full facepiece pressure demand SAR with auxiliary self-contained air supply. Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

continued...
ENGINEERING CONTROLS
General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas.

PHYSICAL PROPERTIES
Liquid.
Mixes with water.

Molecular Weight: Not Applicable
Melting Range (°F): Not Available
Solubility in water (g/L): Miscible
pH (1% solution): Not Available
Volatile Component (%vol): Not Available
Relative Vapor Density (air=1): Not Available
Lower Explosive Limit (%): Not Available
Autoignition Temp (°F): Not Applicable
State: Liquid

Boiling Range (°F): Not Available
Specific Gravity (water= 1): 1.039
pH (as supplied): 3.3
Vapor Pressure (mmHg): Not Available
Evaporation Rate: Not Available
Flash Point (°F): Not Applicable
Upper Explosive Limit (%): Not Applicable
Decomposition Temp (°F): Not Available
Viscosity: Not Available

APPEARANCE
Clear colourless slightly acidic liquid with no odour; mixes with water.

CONDITIONS CONTRIBUTING TO INSTABILITY
- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

STORAGE INCOMPATIBILITY
Avoid contamination of water, foodstuffs, feed or seed.
None known.

Sparkling Clear

TOXICITY AND IRRITATION
Not available. Refer to individual constituents.

ALUMINIUM SULFATE:
unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY
Oral (mouse) LD50: 6207 mg/kg
Oral (rat) TDL0: 10138 mg/kg/8D- C

IRRITATION
Eye (rabbit): 10 mg/24h SEVERE

WATER: 

continued...
Section 11 - TOXICOLOGICAL INFORMATION

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances. No significant acute toxicological data identified in literature search.

Section 12 - ECOLOGICAL INFORMATION

No data for Sparkling Clear.
Refer to data for ingredients, which follows:

ALUMINIUM SULFATE:
Aluminium occurs in the environment in the form of silicates, oxides and hydroxides, combined with other elements such as sodium, fluorine and arsenic complexes with organic matter.
Acidification of soils releases aluminium as a transportable solution. Mobilisation of aluminium by acid rain results in aluminium becoming available for plant uptake.
Drinking Water Standards:
aluminium: 200 ug/l (UK max.)
200 ug/l (WHO guideline)
chloride: 400 mg/l (UK max.)
250 mg/l (WHO guideline)
fluoride: 1.5 mg/l (UK max.)
1.5 mg/l (WHO guideline)
nitrate: 50 mg/l (UK max.)
50 mg/l (WHO guideline)
sulfate: 250 mg/l (UK max.)
Soil Guideline: none available.
Air Quality Standards: none available.
Toxicity Fish: LC50(12-96)100mg/L

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Instructions
All waste must be handled in accordance with local, state and federal regulations.
Legislation addressing waste disposal requirements may differ by country, state and/or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.
A Hierarchy of Controls seems to be common - the user should investigate:
· Reduction,
· Reuse
· Recycling
· Disposal (if all else fails)
This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.
DO NOT allow wash water from cleaning or process equipment to enter drains.
It may be necessary to collect all wash water for treatment before disposal.
In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority.
· Recycle wherever possible.
· Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be...
Section 13 - DISPOSAL CONSIDERATIONS

- Dispose of by: Burial in a licenced land-fill or incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 - TRANSPORTATION INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

REGULATIONS

US CERCLA List of Hazardous Substances and Reportable Quantities

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS</th>
<th>RQ (Pounds)</th>
<th>RQ (KG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium sulfate</td>
<td>10043-01-3</td>
<td>5000</td>
<td>2270</td>
</tr>
</tbody>
</table>

Sparkling Clear (CAS No: None): No regulations applicable

aluminium sulfate (CAS: 10043-01-3) is found on the following regulatory lists;
- Canada - Alberta Occupational Exposure Limits
- Canada - British Columbia Occupational Exposure Limits
- Canada - Ontario Occupational Exposure Limits
- Canada - Quebec Occupational Exposure Limits (French)
- Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits
- Canada Domestic Substances List (DSL)
- IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
- International Council of Chemical Associations (ICCA) - High Production Volume List
- Mexico Maximum Permissible Exposure Limits
- OECD Representative List of High Production Volume (HPV) Chemicals
- United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances - Table II
- US - California Occupational Safety and Health Regulations (CAL/OSHA) - Hazardous Substances List
- US - California Toxic Air Contaminant List Category IV
- US - Connecticut Hazardous Air Pollutants
- US - Minnesota Permissible Exposure Limits (PELs)
- US - New Jersey Right to Know Hazardous Substances
- US - New Jersey Right to Know Hazardous Substances (Spanish)
- US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
- US - Washington Permissible exposure limits of air contaminants
- US - Wisconsin Hazardous Air Contaminants with Acceptable Ambient Concentrations
- US ACGIH Threshold Limit Values (TLV)
- US CERCLA List of Hazardous Substances and Reportable Quantities
- US CWA (Clean Water Act) - List of Hazardous Substances
- US CWA (Clean Water Act) - Reportable Quantities of Designated Hazardous Substances
- US Department of Transportation (DOT) List of Hazardous Substances and Reportable Quantities - Hazardous Substances Other Than Radionuclides
- US DOE Temporary Emergency Exposure Limits (TEELs)
- US FDA Direct Food Substances Generally Recognized as Safe
- US Food Additive Database
- US Toxic Substances Control Act (TSCA) - Inventory
- water (CAS: 7732-18-5) is found on the following regulatory lists;
  - Canada Domestic Substances List (DSL)
  - OECD Representative List of High Production Volume (HPV) Chemicals
  - US DOE Temporary Emergency Exposure Limits (TEELs)
  - US NFPA 30B Manufacture and Storage of Aerosol Products - Chemical Heat of Combustion
  - US Toxic Substances Control Act (TSCA) - Inventory

Section 16 - OTHER INFORMATION

EXPOSURE STANDARD FOR MIXTURES

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

continued...
Composite Exposure Standard for Mixture (TWA) : 100 mg/m³.

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Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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