

Printing date 09/10/2015

Version US-EN-Rev 1

Reviewed on 09/10/2015

- **1** Identification
- · Product identifier
- · Trade name: COEfect Minute Spray
- · Application of the substance / the mixture Auxiliary for dental technology
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier: GC America Inc. 3737 W. 127th Street Alsip, IL 60803 USA

sds@gcamerica.com

- · Information department: Regulatory Affairs
- Emergency telephone number: During normal opening times (Mon.-Fri. 8:00 AM-5:00 PM CST): +1 (708) 597-0900 Transportation (CHEMTREC®) Emergency Telephone No. +1 (800) 424-9300

2 Hazard(s) identification

· Classification of the substance or mixture

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

Acute Tox. 4 H332 Harmful if inhaled.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

Additional information:

The information provided is in regards to the toxicity and hazard rating(s) of the individual component(s) in the formulation. The associated risk(s) depends on the route(s) of exposure. The hazard rating system is based entirely on the existence of the risk(s) and does not take into account the likelihood of reduced risk(s) through proper usage and handling.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS). • Hazard pictograms



· Signal word Danger

• **Hazard-determining components of labeling:** ethyl alcohol

Hazard statements

Highly flammable liquid and vapor. Harmful if inhaled. Causes serious eye irritation. May cause respiratory irritation.

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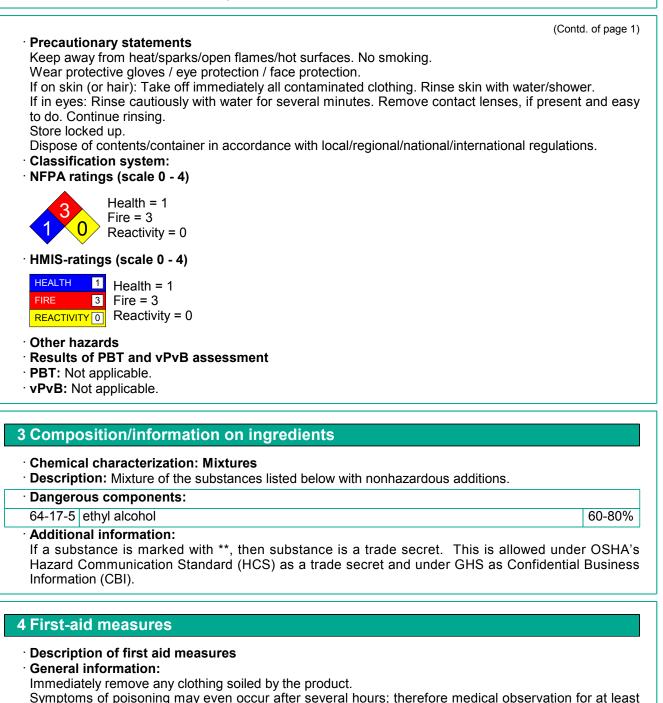
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48 hours after the accident. If symptoms persist consult doctor.

After inhalation:

Supply fresh air or oxygen; call for doctor.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

Do not use mouth to mouth or mouth to nose resuscitation.

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|---|---------------------------|
| · After skin contact: | |
| Rinse with warm water. | |
| If symptoms persist consult doctor. | |
| • After eye contact: | |
| Protect unharmed eye. | - de ete a |
| Rinse opened eye for several minutes under running water. Then consult a | |
| After swallowing: Rinse out mouth and then drink plenty of water. | |
| If symptoms persist consult doctor. | |
| · Information for doctor: | |
| [•] Most important symptoms and effects, both acute and delayed | |
| No further relevant information available. | |
| Indication of any immediate medical attention and special treatment r | needed |
| No further relevant information available. | locuou |
| | |
| | |
| 5 Fire-fighting measures | |
| | |
| Extinguishing media | |
| Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not | t use water. |
| For safety reasons unsuitable extinguishing agents: Water | |
| • Special hazards arising from the substance or mixture | |
| Formation of toxic gases is possible during heating or in case of fire. | |
| Advice for firefighters Protective equipment: | |
| Mouth respiratory protective device. | |
| Wear self-contained respiratory protective device. | |
| · Additional information | |
| Dispose of fire debris and contaminated fire fighting water in accordance w | vith official regulations |
| | |
| | |
| 6 Accidental release measures | |
| | |
| Personal precautions, protective equipment and emergency procedu | res |
| Remove persons from danger area. | |
| Keep away from ignition sources Avoid contact with the eyes and skin. | |
| Wear protective clothing. | |
| · Environmental precautions: | |
| Do not allow product to reach sewage system or any water course. | |
| Do not allow to penetrate the ground/soil. | |
| · Methods and material for containment and cleaning up: | |
| Ensure adequate ventilation. | |
| Absorb liquid components with liquid-binding material. | |
| Dispose of the collected material according to regulations. | |
| | |

Reference to other sections
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

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7 Handling and storage

· Handling:

- Precautions for safe handling Observe instructions for use.
 Ensure good ventilation/exhaustion at the workplace.
 Do not inhale dust / smoke / mist.
 Prevent formation of aerosols.
 Avoid contact with the eyes and skin.
 Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.
 Protect from heat.
 Protect against electrostatic charges.
 Do not spray on a naked flame or any incandescent material.
- · Storage:
- **Requirements to be met by storerooms and receptacles:** Store in a cool location. Store only in unopened original receptacles.
- · Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions:
- Observe instructions for use / storage. Keep receptacle tightly sealed.
- Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Store in a cool place.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- Control parameters

Components with limit values that require monitoring at the workplace:

- 64-17-5 ethyl alcohol
- PEL Long-term value: 1900 mg/m³, 1000 ppm
- REL Long-term value: 1900 mg/m³, 1000 ppm
- TLV Short-term value: 1880 mg/m³, 1000 ppm
- · Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- Avoid contact with the eyes and skin.
- Wash hands before breaks and at the end of work.
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Breathing equipment: Suitable respiratory protective device recommended.
- · Protection of hands: Protective gloves
- · Material of gloves
- The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several

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(Contd. of page 4) substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• Penetration time of glove material The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection: Safety glasses

| 9 Physical and chemical prope | rties |
|---|--|
| Information on basic physical and General Information | chemical properties |
| · Appearance: Form: | Liquid |
| Color: | Liquid Clear |
| · Odor: | Alcohol-like |
| Odor threshold: | Not determined. |
| · pH-value at 20 °C (68 °F): | 3.7 |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: | Undetermined. Undetermined. |
| Flash point: | 19 °C (66 °F) |
| · Flammability (solid, gaseous): | Not applicable. |
| · Ignition temperature: | Undetermined. |
| · Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not self-igniting. |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air vapor mixtures are possible. |
| · Explosion limits: | |
| Lower: | 3.5 Vol % |
| Upper: | 15.0 Vol % |
| · Vapor pressure: | Not determined. |
| · Density at 20 °C (68 °F): | 0.86 g/cm³ (7.177 lbs/gal) |
| Relative density | Not determined. |
| · Vapour density | Not determined. |
| · Evaporation rate | Not determined. |
| Solubility in / Miscibility with Water: | Insoluble. |
| · Partition coefficient (n-octanol/wat | er): Not determined. |
| · Viscosity: | |
| Dynamic at 20 °C (68 °F): | 3.23 mPas |
| Kinematic: | Not determined. |
| Solvent content: Organic solvents: | 80.0 % |
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|--|--|--------------------|
| VOC content: | 80.0 % | |
| Solids content: · Other information | 20.0 % No further relevant information available. | |

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability Stable at ambient temperature.
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid No further relevant information available.
- · **Incompatible materials:** No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:
- · LD/LC50 values that are relevant for classification: No further relevant information available.
- · Primary irritant effect:
- · on the skin: No irritant effect.
- on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

· Carcinogenic categories

| - | | - | | | | | | | | |
|-------|-------|----------|------|-----|-------|--------|------|------|----|--|
| (Inte | ernat | ional Ag | ency | for | Resea | arch c | on C | ance | r) | |
| | | | | | | | | | | |

ethyl alcohol

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

- · Carcinogenic categories' legend:
- IARC Group 1: The agent is carcinogenic to humans.
- IARC Group 2A: The agent is probably carcinogenic to humans.
- IARC Group 2B: The agent is possibly carcinogenic to humans.
- IARC Group 3: The agent is not classifiable as to its carcinogenicity to humans.
- IARC Group 4: The agent is probably not carcinogenic to humans.
- NTP K: Known to be human carcinogen.

NTP R: Reasonably anticipated to be human carcinogen.

Additional carcinogenic information:

The substance ethyl alcohol, also known as ethanol, is listed by IARC as a Group 1 carcinogen but in alcoholic beverage consumption. IARC Volume 100E (2012) "Personal Habits and Indoor Combustions" stated in its monograph "Consumption of Alcoholic Beverages" the following evaluation: "Ethanol in alcoholic beverages is carcinogenic to humans (Group 1)." GC products are not consumable alcoholic

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beverages.

- · Repeated dose toxicity. No further relevant information available.
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction) No further relevant information available.
- No further relevant information available.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

| UN-Number | | |
|-------------------------|------------------------|--|
| DOT, ADR, IMDG, IATA | UN1170 | |
| UN proper shipping name | | |
| DOT | Ethanol solutions | |
| ADR | 1170 Ethanol solutions | |
| IMDG, IATA | ETHANOL SOLUTION | |

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|---|---|
| Transport hazard class(es) | |
| DOT | |
| | |
| RAMIABLE LIQUID | |
| 3 | |
| Class | 3 Flammable liquids |
| Label | 3 |
| ADR | |
| | |
| | |
| 3 | |
| Class | 3 (F1) Flammable liquids |
| · Label | 3 |
| · IMDG, IATA | |
| | |
| | |
| 3 | |
| Class | 3 Flammable liquids |
| Label | 3 |
| Packing group | |
| DOT, ADR, IMDG, IATA | |
| Environmental hazards: | Not applicable. |
| Special precautions for user | Warning: Flammable liquids |
| [·] Danger code (Kemler): · EMS Number: | 33 F-E,S-D |
| | |
| Transport in bulk according to Annex MARPOL73/78 and the IBC Code | Not applicable. |
| Transport/Additional information: | |
| | |
| • ADR • Excepted quantities (EQ) | Code: E2 |
| | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 500 ml |
| IMDG | |
| Limited quantities (LQ) | 1L Control EQ |
| · Excepted quantities (EQ) | Code: E2 Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 50 ml |
| UN "Model Regulation": | UN 1170 ETHANOL SOLUTIONS, 3, II, (D/E) |

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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
 SARA (Superfund Amendments and Reauthorization Act)
- · Section 355 (extremely hazardous substances):
- None of the ingredients is listed.
- Section 313 (Specific toxic chemical listings):
- None of the ingredients is listed.
- TSCA (Toxic Substances Control Act):
- All ingredients are listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency)
- None of the ingredients is listed.
- TLV (Threshold Limit Value established by ACGIH)

ethyl alcohol

A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements
- The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



- · Signal word Danger
- Hazard-determining components of labeling: ethyl alcohol
- Hazard statements
 Highly flammable liquid and vapor.
- Harmful if inhaled.

Causes serious eye irritation.

May cause respiratory irritation.

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves / eye protection / face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations. • Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

• Department issuing SDS: Regulatory Affairs

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|---|
| · Contact: |
| Regulatory Affairs |
| Telephone No. +1 (708) 597-0900 |
| sds@gcamerica.com |
| Date of preparation / last revision 09/10/2015 / - |
| Abbreviations and acronyms: |
| GHS: Globally Harmonized System of Classification and Labelling of Chemicals |
| HCS: Hazard Communication Standard (USA) MSDS: Material Safety Data Sheet |
| SDS: Safety Data Sheet |
| ECHA: European Chemicals Agency |
| OSHA: Occupational Safety and Health Administration (USA) |
| ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) |
| IMDG: International Maritime Code for Dangerous Goods |
| DOT: US Department of Transportation |
| IATA: International Air Transport Association |
| ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstracts Service (division of the American Chemical Society) |
| NFPA: National Fire Protection Association (USA) |
| HMIS: Hazardous Materials Identification System (USA) |
| VOC: Volatile Organic Compounds (USA, EU) |
| LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent |
| PBT: Persistent, Bioaccumulative and Toxic |
| vPvB: very Persistent and very Bioaccumulative |
| Flam. Liq. 2: Flammable liquids, Hazard Category 2 |
| Acute Tox. 4: Acute toxicity, Hazard Category 4 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A |
| STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 |
| Sources |
| Manufacturers' MSDSs/SDSs |
| OSHA (https://www.osha.gov/dts/chemicalsampling/toc/chmcas.html) |
| • TOXNÈT (http://toxnet.nlm.nih.gov/) |
| • ECHA (http://echa.europa.eu/) |
| EnviChem (www.echemportal.org) |
| Notes: |
| CAS Registry Number is a Registered Trademark of the American Chemical Society. |
| CHEMTREC® is a registered service mark of the American Chemistry Council, Inc. |
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