SAFETY DATA SHEET

Issue Date 6-June-2018 Revision Date 19-Feb-2021 Version 2

SECTION 1: Product And Company Identification

1.1. Identification

Trade name : Ace Cem liquid (Acid Copolymer 50% Solids)

Other Means of Identification

Control# : 06-032 **Product Code** : ACL001

> 2-Butenedioic acid (2z)-, polymer with 2-methylenebutanedioic acid

and 2-propenoic acid

1.2. Recommended use and restrictions on use

Recommended Use Organic Process Chemical.

1.3. Supplier

Rident Denpro Pvt Ltd. 40, vrindavan nagar, behind jain temple, Borananda Jodhpur-342008 India Website: www.rident.in E-mail: info@rident.in

1.4. Emergency telephone number

+919414201171

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

| Skin Irritation | Category 2 |
|---------------------|-------------|
| Eye Irritation | Category 2B |
| Sensitization, Skin | Category 1 |

Signal Word

Warning

Hazard Statements

Causes eye irritation. Causes skin irritation.

May cause an allergic skin reaction.



Appearance white to yellow liquid Physical State Liquid **Odor** Mild characteristic odor

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace.

Precautionary Statements – Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsinglf irritation occurs: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water. If irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Precautionary Statements - Storage/Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other Hazards

Unstable/Reactive upon depletion of inhibitor. Check inhibitor levels periodically.

SECTION 3: Composition/Information On Ingredients

| Chemical Name | CAS No | Weight-% |
|---------------|------------|-----------|
| Copolymer | 35464-54-1 | 30.0-60.0 |
| Water | 7732-18-5 | 30.0-60.0 |

Note: this material contains an inhibitor (HQ, MEHQ, BHT, etc) at <1%. The type and amount meet product specifications.

Contactmanufacturer for exact concentration and details on inhibitor level maintenance.

SECTION 4: First Aid Measures

| Firct | Λid | Measures |
|-------|-----|----------|
| | | |

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact If product gets in the eyes, flush with lukewarm water for at least 15 minutes. If irritation

occurs, contact a physician.

Skin Contact If irritation occurs and product is on the skin, rinse thoroughly with lukewarm water,

followedby a thorough washing of the affected area with soap and water. If irritation,

redness or swelling persists, contact a physician immediately.

Inhalation Remove to fresh air. Seek immediate medical attention if you feel unwell.

Ingestion If ingested, do not induce vomiting. Rinse mouth. Never give anything by mouth to

anunconscious person. Get medical attention immediately if you feel unwell.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms

Eyes: May be irritating to the eyes. Symptoms of overexposure may include

redness, itching, irritation and watering.

Skin: May be irritating to skin in some sensitive individuals, especially after

prolongedand/or repeated contact.

Inhalation: This product is not expected to be an inhalation hazard.

Ingestion: Not expected to cause any harmful effects. Ingestion of large amounts may be

irritating; may cause nausea, headache, vomiting, and/or diarrhea.

Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians Chemical

Treat symptomatically after thorough decontamination

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media Carbon dioxide, Dry chemical, and water

Unsuitable Extinguishing Media None listed.

Specific Hazards Arising from the

Chemical

Potential dust explosion hazard. When heated, flammable vapors are emitted, that when

mixed with air can burn or be explosive.

Hazardous Combustion Products Organic oxides and oxides of carbon.

Protective Equipment and Precautions for Firefighters

Avoid extinguishing methods which may generate dust clouds. Water stream can disperse dust into air producing a fire hazard andpossible explosion hazard if exposed to ignition source. Firefighters should wear self-contained breathing apparatus.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Personal PrecautionsBefore cleaning any spill or leak, individuals must wear appropriate Personal Protective

Equipment that is specified in section 8. Deny entry to all unprotected individuals.

Removeany contaminated clothing and wash thoroughly before reuse.

Environmental Precautions See Section 12 for additional ecological information. Keep spills and cleaning runoffs out

ofmunicipal sewers and open bodies of water.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so. Dike and contain spill with inert

material(e.g. sand or earth).

Methods for Cleaning Up Maximize ventilation (open doors and windows) and secure all sources of ignition. Use

good, local ventilation with a minimum capture velocity of 100 ft/min (30 m/min) at point of monomer release. Place into appropriate closed container(s) for disposal in accordance with local, state and federal regulations. Wash all affected areas with plenty

of warm waterand soap.

SECTION 7: Handling and Storage

Precautions for Safe Handling Advice on Safe Handling

Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Keep away from heat, sparks, and flame. Keep container closed after each use. Do NOT use localized heat source such as band heaters to heat/melt product. Do NOT use steam. Hot boxes or hot rooms are recommended for heating the product, which can be set at a maximum temperature of 60°C/140°F. Avoid contact with skin, eyes and clothing. Use good personal hygiene and housekeeping.

After use, wash hands and exposed skin with soap and water. Do not eat, drink, or smoke while handling product. Observe precautions found on label.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions Store

Store containers in a cool, dry location, away from direct sunlight, heat, sparks, flame, other light sources, or sources of intense heat. Keep container closed to prevent water absorption and contamination. Observe all label precautions until the container is cleaned, reconditioned, or destroyed.

Incompatible Materials

Strong oxidizers, strong reducers, free radical initiators, inert gases, oxygen

scavengers.

SECTION 8. Exposure Controls/Personal Protection

Exposure Guidelines Appropriate Engineering Controls

Engineering Controls

The following information is given as general guidance

When working with large quantities of product provide adequate ventilation (e.g., local exhaust ventilation, fans). Ensure that an eyewash station, sink or washbasin is available in case of exposure to eyes. Use good local exhaust at processing equipment including buffers, sanders, grinders, and polishers.

Individual Protection Measures, such as Personal Protective Equipment Eye/Face Protection

Wear safety glasses, chemical goggles when splashing is possible, when dealing with this material. If necessary, refer to U.S. OSHA 29 CFR §1910.133, or other appropriate governing standard. Ensure that an eyewash station, sink, or washbasin is available in case of exposure to eyes.

Skin and Body Protection

Avoid skin contact. Wear chemical resistant gloves for routine industrial use. If necessary,refer to U.S. OSHA 29 CFR §1910.138, or other appropriate governing standards. No special body protection is required under typical circumstances of use and handling.

Respiratory Protection

A respirator should be worn whenever workplace conditions warrant a respirator's use. Usea NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, a dust mask may also be necessary based on the workplace conditions. If necessary, use only respiratory protection authorized per U.S. OSHA's requirement in 29 CFR §1910.134 or other appropriate governing standard.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash thoroughlyafter handling. An eyewash station and a safety shower are recommended. Food, beverages, and tobacco products should not be carried, stored, or consumed where thismaterial is in use. Wash hands thoroughly before eating, drinking, or smoking.

SECTION 9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical State Liquid

Appearance White to yellow liquid Odor Mild characteristic odor

Remarks • Method

Color White to yellow liquid Odor Threshold Not determined

Property Values

Not established рΗ Melting Point/Freezing Point Not established Boiling Point/Boiling Range ~100° C / 212° F Flash Point >200° C / >392° F **Evaporation Rate** Not established Flammability (Solid, Gas) Not applicable **Upper Flammability Limits** Not established Lower Flammability Limit Not established Vapor Pressure Not established Vapor Density Not established Specific Gravity Not established

Water Solubility
Solubility in Other Solvents
Partition Coefficient
Autoignition Temperature
Decomposition Temperature
Kinematic Viscosity
Miscible
Not established
Not established
Not established
Not established

Dynamic Viscosity ~220 cps @ 25° C/77° F

Explosive PropertiesNot established **Oxidizing Properties**Not established

SECTION 10. Stability and Reactivity

Reactivity Non-reactive

Chemical Stability Stable

Possibility of Hazardous Reactions

Hazardous Polymerization Will not occur.

Conditions to Avoid Heating above 240° C, 464 ° F; High light intensity >10000 lux

Incompatible Materials Strong oxidizing agents, strong reducing agents

<u>Hazardous Decomposition Products</u> Organic acids and oxides of carbon when burned.

SECTION 11. Toxicological Information

Product Information

Eye Contact May be irritating to the eyes. Symptoms of overexposure may include redness, itching,

irritation, and watering.

Skin Contact May be irritating to skin in some sensitive individuals, especially after prolonged and/or

repeated contact.

Inhalation This product is not expected to be an inhalation hazard.

Ingestion Not expected to cause any harmful effects. Ingestion of large amounts may be

irritating; may cause nausea, headache, vomiting, and/or diarrhea.

Component Information Not available

Information on Physical, Chemical and Toxicological Effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Germ Cell MutagenicityThis product is not reported to produce mutagenic effects in humans.

Carcinogenicity This product does not contain any carcinogens as listed by OSHA, IARC, or NTP.

Reproductive ToxicityThis product is not reported to produce reproductive effects in humans. **Developmental Toxicity**This product is not reported to produce embryotoxic effects in humans.

Teratogenicity This product is not reported to cause teratogenic effects in humans.

Chronic Toxicity This product is not reported to cause chronic toxicity effects in humans.

Target Organ Effects None listed.

Numerical Measures of Toxicity

This product has NOT been tested on animals to obtain toxicology data. There may be toxicology data for the components of the product, which are found in scientific literature. These data have not been presented in this document.

SECTION 12. Ecological Information

Ecotoxicity

There are no specific data available for this product; however, very large releases of this product may be harmful or fatal to exposed aquatic life.

 Component Information
 Not available

 Persistence and Degradability
 Not determined

 Bioaccumulation
 Not determined

 Mobility
 Not determined

 Other Adverse Effects
 Not determined

SECTION 13. Disposal Considerations

Waste Treatment Methods

Disposal of WastesDispose of properly in accordance with Federal, State, and Local regulations.

Contaminated Packaging Reuse of empty drums or containers is not recommended. Employees should be advised of

the potential hazards, due to residual flammable material, associated with empty

containers. Dispose of all empty containers properly, in accordance with Federal, State and

Local regulations.

SECTION 14. Transport Information

Note Please see current shipping paper for most up to date shipping information, including

exemptions and special circumstances.

DOT Non-hazardous - not regulated

<u>IATA</u> Non-hazardous – safe for air travel

IMDG Not

regulated

SECTION 15. Regulatory Information

International Inventories

TSCA Listed

DSL Not Listed

NDSL Listed

EINECS Not Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

US Federal Regulations

This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR subchapter G (Cosmetics).

SARA 311/312 Hazard Categories

Acute health hazardYesChronic Health HazardNoFire hazardNoSudden release of pressure hazardNoReactive HazardNo

SARA 313

Not determined

US State Regulations

Not Listed

U.S. State Right-to-Know Regulations

Not Determined

SECTION 16. Other Information

| NFPA | Health Hazards 2 | Flammability 1 | Instability 0 | Special Hazards Not determined |
|-------------|---------------------|-------------------|------------------|-----------------------------------|
| <u>HMIS</u> | Health Hazards | Flammability | Physical Hazards | Personal Protection |
| | 2 | 1 | 0 | Safety Glasses, Gloves |

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any othermaterials or in any process, unless specified in the text.

MATERIAL SAFTY DATA SHEET

SECTION 1: Identification

1.1. Identification

Trade Name: Ace-Cem Powder

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Rident Denpro Pvt Ltd.

40-41, Vrandavan Nagar Behind Jain Temple, Boranada

, Jodhpur 342012 India

T+91-9414201171

info@rident.in

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|--------------------------|--------------------|---------|-----------------------|
| SILICON OXIDE, AMORPHOUS | CAS-No.: 7631-86-9 | 30 – 45 | Not classified |
| ALUMINUM FLUORIDE | CAS-No.: 7784-18-1 | 30 – 40 | Not classified |
| STRONTIUM OXIDE | CAS-No.: 1314-11-0 | 20 – 30 | Not classified |

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

No additional information available

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

No additional information available

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No additional information available

For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

No additional information available

7.2. Conditions for safe storage, including any incompatibilities

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ace Cem

No additional information available

SILICON OXIDE, AMORPHOUS (7631-86-9)

No additional information available

STRONTIUM OXIDE (1314-11-0)

No additional information available

ALUMINUM FLUORIDE (7784-18-1)

No additional information available

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment symbol(s):



Odour threshold

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid Colour : white

Odour : Mixture contains one or more component(s) which have the following

: No data available

odour:

рΗ : No data available Melting point : No data available Freezing point : No data available **Boiling point** : No data available Flash point : No data available Relative evaporation rate (butylacetate=1) : No data available Flammability (solid, gas) : No data available Vapour pressure : No data available Relative vapour density at 20 °C : No data available Relative density : No data available Solubility : 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 Viscosity, dynamic : No data available **Explosive limits** : No data available **Explosive properties** : No data available Oxidising properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

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

| SILICON OXIDE, AMORPHOUS (7631-86-9) | | |
|--------------------------------------|--------------------------------------|--|
| LD50 oral rat | 3160 mg/kg Source: TOMES; HAZARDTEXT | |
| LD50 dermal rabbit | > 2000 mg/kg | |
| ATE US (oral) | 3160 mg/kg bodyweight | |
| ATE US (dust,mist) | 5.01 mg/l/4h | |

| LD50 oral rat | 1030 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline |
|-----------------------------------|---|
| | 425(Acute Oral Toxicity: Up-and-Down Procedure), 95% CL: 550 - 1750 |
| ALUMINUM FLUORIDE (7784-18-1) | |
| LC50 Inhalation - Rat | > 0.53 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), |
| | Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity), Guideline: other:, |
| | Guideline:other:, Remarks on results: other: |
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |

| IARC group | | 3 - Not classifiable |
|------------------------|---|----------------------|
| Reproductive toxicity | : | Not classified |
| STOT-single exposure | : | Not classified |
| STOT-repeated exposure | : | Not classified |
| Aspiration hazard | : | Not classified |
| Viscosity, kinematic | : | No data available |

SECTION 12: Ecological information

12.1. Toxicity

| SILICON OXIDE, AMORPHOUS (7631-86-9) | | | | |
|---|---|--|--|--|
| LC50 - Fish [1] | 5000 mg/l Source: IUCLID | | | |
| EC50 - Crustacea [1] | > 5000 mg/l Source: ECHA | | | |
| STRONTIUM OXIDE (1314-11-0) | | | | |
| LC50 - Fish [1] | > 56.34 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) | | | |
| EC50 - Crustacea [1] | > 56.3 mg/l Test organisms (species): Daphnia magna | | | |
| NOEC (chronic) 21 mg/l Test organisms (species): Daphnia magna Duration: '3 wk' | | | | |
| ALUMINUM FLUORIDE (7784-18-1) | | | | |
| LC50 - Fish [1] | > 300 mg/l Source: ECHA | | | |
| EC50 - Crustacea [1] | > 7.6 mg/l Source: ECHA | | | |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

No additional information available

SECTION 14: Transport information

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

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14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

| Name | CAS-No. | Listing | Commercial status | Flags |
|--------------------------|-----------|---------|-------------------|-------|
| SILICON OXIDE, AMORPHOUS | 7631-86-9 | Present | Active | |

| Name | CAS-No. | Listing | Commercial status | Flags |
|-------------------|-----------|---------|-------------------|-------|
| STRONTIUM OXIDE | 1314-11-0 | Present | Active | |
| ALUMINUM FLUORIDE | 7784-18-1 | Present | Active | |

International regulations

CANADA

SILICON OXIDE, AMORPHOUS (7631-86-9)

Listed on the Canadian DSL (Domestic Substances List)

STRONTIUM OXIDE (1314-11-0)

Listed on the Canadian DSL (Domestic Substances List)

ALUMINUM FLUORIDE (7784-18-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

SILICON OXIDE, AMORPHOUS (7631-86-9)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

ALUMINUM FLUORIDE (7784-18-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

US State regulations

No additional information available

SECTION 16: Other information

According to Federal Register / Vol. 77, No. 58 / Monday, March 26,

2012 / Rules and RegulationsSafety 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.