Product Name: ZERON, BLUE ICE BASE

Product Code: 391 Date issued: 2/28/2018

SECTION 1: IDENTIFICATION

Product Name ZERON, BLUE ICE BASE

Product Code # 391

Identified Uses Protective Coating

Manufacturer: Kelley Technical Coatings

1445 South 15th Street P.O. Box 3726

Louisville, Kentucky 40201-3726

Emergency Contact Number: Day: 502-636-2561 Night: 800-424-9300

Information Telephone Number: 502-636-2561

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Flammable Liquid 3 Aspiration Hazard 1 Acute Toxicity-Dermal 4 Skin Sensitization 1 Eye Damage/Irritation 2A Acute Toxicity - Inhalation 4

Carcinogenicity 2

Specific Target Organ Toxicity (Single Exposure) 3

GHS Label Elements

Hazard Symbols



Signal Word Danger

Hazard Statements

H226 Flammable liquid and vapor

H304 May be fatal if swallowed and enters airways

H312 Harmful in contact with skin H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H332 Harmful if inhaled

H351 Suspected of causing cancer

H336 May cause drowsiness or dizziness

Precautionary statements

Prevention

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. No Smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapor/spray.

P271 Use only outdoors or in well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear PPE to protect skin/eyes.

P281 Use personal protective equipment as required.

Response

P312 Call a poison center or doctor if you feel unwell.

P363 Wash contaminated clothing and wash before reuse.

P301 + P310 If swallowed: Immediately call a poison center or doctor.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

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P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P370 + P378 In case of fire: Use ABC Dry Chemical for extinction.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

Storage/ Disposal

P405 Store locked up.

P501 Dispose of contents/container in accordance with federal, state, provincial, and local regulations.

P403 + P233 Store in well ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

OSHA Regulatory Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR1910.1200)

SECTION 3: COMPOSITION INFORMATION

| Chemical Designation | CAS No. | % by Weight |
|------------------------|------------|-------------|
| nepheline syenite | 37244-96-5 | 20 - 30% |
| bisphenol-a epoxy | 25068-38-6 | 20 - 30% |
| epoxy resin | 25036-25-3 | 10 - 20% |
| titanium dioxide | 13463-67-7 | 10 - 20% |
| light aromatic naphtha | 64742-95-6 | 10 - 20% |
| 2-butoxyethanol | 111-76-2 | 1 - 5% |
| 1,2,4 trimethylbenzene | 95-63-6 | 1 - 5% |
| cumene | 98-82-8 | 0.1 - 1% |
| | | |

SECTION 4: FIRST AID MEASURES

General Advice Show this safety data sheet to the doctor in attendance

Eyes: Flush with plenty of cool water for at least 15 minutes, holding eyelids apart for thorough irrigation. If irritation persists, get

immediate medical attention.

Skin: Wash affected area thoroughly with soap and water. If skin irritation persists, get immediate medical attention.

Inhalation: Move to fresh air. Restore breathing. If breathing is difficult, get immediate medical attention.

Ingestion: Do not induce vomiting – seek immediate medical attention.

Notes to Physician Treat symptomatically

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific Hazards arising from the

Closed containers may rupture if exposed to fire or extreme heat.

Chemical

Special protective As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective

Equipment: gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Remove all sources of ignition.

Environmental Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from Precautions entering drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages

cannot be contained.

Methods for Clean-up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface

thoroughly.

Other Information None known

SECTION 7: HANDLING & STORAGE

Handling: Use only in area provided with appropriate exhaust ventilation. Do not breathe vapors or spray mist. Wear appropriate personal

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protective equipment. Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge,

all metal parts of the equipment must be grounded. Keep away from open flames, hot surfaces and sources of ignition.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep in properly labeled containers.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

HMIS is a Health, Flammability and Reactivity rating: 2*21

HMIS CODE: 4 – SEVERE HAZARD, 3 – SERIOUS HAZARD, 2 – MODERATE HAZARD, 1 – SLIGHT HAZARD, 0 – MINIMAL HAZARD, * – Chronic Hazard Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual conditions of use.

Exposure Limits

| Hazardous Components | OSHA PEL | ACGIH TLV |
|------------------------|-----------|-----------|
| nepheline syenite | 5 ppm (R) | NE |
| bisphenol-a epoxy | NA | NA |
| epoxy resin | NE | NE |
| titanium dioxide | 15 mg/m3 | 10 mg/m3 |
| light aromatic naphtha | NE | NE |
| 2-butoxyethanol | 50 ppm | 20 ppm |
| 1,2,4 trimethylbenzene | 25 ppm | 25 ppm |
| cumene | 50 ppm | 50 ppm |
| | | |

NE = None established NA = Not available (C) = Ceiling limit (I) = Inhalable fraction (IFV) = Inhalable fraction and vapor STEL = Short term exposure limit

(R) = Respirable fraction

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal Protective

Equipment

Eyes/Face: Safety goggles or full face shield

Skin: Protective gloves and impervious clothing.

Respiratory Protection: In operations where exposure limits are exceeded, use a NIOSH approved respirator that has been selected by a technically

qualified person for the specific work conditions. When spraying the product or applying in confined areas, wear a NIOSH

approved respirator specified for paint spray or organic vapors.

Hygiene Practices: Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after

handling. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid Odor: Solvent odor Odor threshold: Not determined 2.09 VOC (g/L) 251.01 VOC lb/gal VOC (lb/gal) less exempt 2.09 VOC (g/L) less exempt 251.01 Relative Density (LB/GAL): 12 13 Specific Gravity (g/L): 1.46

Flash Point (F): 110

Flammability: Not determined Upper/lower flammability limits: Not available

Auto-ignition temperature: Not determined Decomposition temperature: Not determined

Evaporation rate : Not available

Vapor Pressure (mmHg):Not availableVapor Density:Not availableInitial Boiling Point (F):Not availableBoiling Point Range (F):Not availableFreezing Point (F):Not determinedMelting Point (F):Not determinedpHNot availableViscosityNot available

Solubility (ies): Not determined

octanol/water

Partition coefficient: n- Not determined

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions. Hazardous polymerization does not occur.

Conditions to Avoid: Keep away from open flames, hot surfaces, static electricity and sources of ignition.

Materials to Avoid: Incompatible with strong acids and bases and strong oxidizing agents.

Hazardous Decomposition Products: Thermal decomposition can lead to release of irritating gases and vapors.

Possibility of Hazardous Reactions: None under normal conditions of use.

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SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

| Component | LD50 Oral mg/kg (Rat) | LD50 Dermal mg/kg (Rabbit) | LC50 Inhalation mg/L (Rat, 4 hr.) |
|------------------------|-----------------------|----------------------------|-----------------------------------|
| nepheline syenite | NA | NA | NA |
| bisphenol-a epoxy | 1,000-5,000 | >1,200 | NA |
| epoxy resin | > 2,000 | NA | NA |
| titanium dioxide | 10,000 | 10,000 | 6.82 |
| light aromatic naphtha | 8,400 | NA | NA |
| 2-butoxyethanol | 470 | 220 | 2.2 |
| 1,2,4 trimethylbenzene | 5,000 | 18,000 | NA |
| cumene | NA | NA | NA |

Chronic Toxicity

The information below indicates whether each agency has listed any ingredient as a carcinogen:

 Component
 IARC
 NTP
 OSHA

 titanium dioxide
 2B – Possible Human Carcinogen
 Not listed
 Listed

 cumene
 2B – Possible Human Carcinogen
 Not listed
 Listed

Per IARC Summary of Data Reported, Subsection 5.1: No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as in paints.

SECTION 12: ECOLOGICAL INFORMATION

No ecological information available

SECTION 13: DISPOSAL CONSIDERATION

Waste Disposal Method Dispose of in accordance with federal, state, provincial, and local regulations. Local requirements may vary, consult your

sanitation department or state-designated environmental protection agency for more disposal options.

SECTION 14: TRANSPORT INFORMATION

Contact the manufacturer for shipping information.

SECTION 15: REGULATORY INFORMATION

US TSCA: Yes – All components are listed or exempt

Federal Regulations

SARA 311/312 hazardous categorization

Acute Health Hazard YES
Chronic Health Hazard YES
Fire Hazard NO
Sudden Release of Pressure Hazard NO
Reactive Hazard NO

SARA 313

Section 313 OF Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). If listed below, this product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical Designation | Cas No. | Weight % |
|------------------------|----------|----------|
| 2-butoxyethanol | 111-76-2 | < 5% |
| 1,2,4 trimethylbenzene | 95-63-6 | < 5% |

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPS)

Chemical Designation Cas No. Weight % cumene 98-82-8 0.21

Any Target HAP listed in this section is not an OSHA Carcinogen unless listed as such in Section 11 under Chronic Toxicity.

State Regulations

California Proposition 65

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This product may contain small amounts of materials known to the state of California to cause cancer or reproductive harm.

SECTION 16: OTHER INFORMATION

Date issued: 2/28/2018 VER 05

The above Information is based on the present state of our knowledge of the product at the time of publication. It is given in good faith. No warranty is implied with respect to the quality or the specification of the product and the user must satisfy himself that the product is entirely suitable for his purposes.