

SAFETY DATA SHEET

Product Name: ZERON, BLUE ICE BASE

Product Code: 391

Date issued: 5/27/2015

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

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 Classification

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

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P312 Call a poison center or doctor if you feel unwell.
P363 Wash contaminated clothing and wash before reuse.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
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.

Other Hazards **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	5 - 10%
1,2,4 trimethylbenzene	95-63-6	1 - 5%
2-butoxyethanol	111-76-2	1 - 5%

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 Chemical Closed containers may rupture if exposed to fire or extreme heat.
Special protective Equipment: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment. Remove all sources of ignition.
Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

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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 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
1,2,4 trimethylbenzene	25 ppm	25 ppm
2-butoxyethanol	50 ppm	20 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
VOC lb/gal	2.09	VOC (g/L)	251.01
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 available	Vapor Density :	Not available
Initial Boiling Point (F):	Not available	Boiling Point Range (F):	Not available
Freezing Point (F):	Not determined	Melting Point (F):	Not determined
pH	Not available	Viscosity	Not available
Solubility (ies):	Not determined		
Partition coefficient: n-octanol/water	Not determined		

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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.

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
1,2,4 trimethylbenzene	5,000	18,000	NA
2-butoxyethanol	470	220	2.2

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

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

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Product Name: ZERON, BLUE ICE BASE

Product Code: 391

Date issued: 5/27/2015

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 %
1,2,4 trimethylbenzene	95-63-6	< 5%

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPS) (see 40 CFR 61)

Chemical Designation	Cas No.	Weight %
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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

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: 5/27/2015 VER 04

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.

SAFETY DATA SHEET

Product Name: ZERON CATALYST

Product Code: 390 CATALYST

Date issued: 5/27/2015

SECTION 1 : IDENTIFICATION

Product Name ZERON CATALYST

Product Code # 390 CATALYST

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

Flammable Liquid 3
Aspiration Hazard 1
Skin Irritant 2
Eye Damage/Irritation 2a
Acute Toxicity - Inhalation 4
Carcinogenicity 2
Specific Target Organ Toxicity (Single Exposure) 3

GHS Classification

GHS Label Elements

Hazard Symbols



Signal Word Danger

Hazard Statements

H226 Flammable liquid and vapor
H304 May be fatal if swallowed and enters airways
H315 Causes skin irritation
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.
P264 Wash hands and/or face thoroughly after handling.
P271 Use only outdoors or in well-ventilated area.
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.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

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Product Name: ZERON CATALYST

Product Code: 390 CATALYST

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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.
P332 + P313 If skin irritation 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 + P235 Store in a well-ventilated place. Keep cool.

Other Hazards **OSHA Regulatory Status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 3 : COMPOSITION INFORMATION

Chemical Designation	CAS No.	% by Weight
modified polyamide resin	68424-41-9	30 - 40%
polyamide resin	68410-23-1	30 - 40%
benzyl alcohol	100-51-6	10 - 20%
light aromatic naphtha	64742-95-6	5 - 10%
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 Chemical	Closed containers may rupture if exposed to fire or extreme heat.
Special protective Equipment:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Remove all sources of ignition.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from 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

SAFETY DATA SHEET

Product Name: ZERON CATALYST

Product Code: 390 CATALYST

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SECTION 7 : HANDLING & STORAGE

Handling: Use only in area provided with appropriate exhaust ventilation. Do not breathe vapors or spray mist. Wear appropriate personal 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
modified polyamide resin	NE	NE
polyamide resin	NE	NE
benzyl alcohol	NE	NE
light aromatic naphtha	NE	NE
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
VOC lb/gal	1.17	VOC (g/L)	140.40
VOC (lb/gal) less exempt	1.17	VOC (g/L) less exempt	140.40
Relative Density (LB/GAL):	8.14	Specific Gravity (g/L):	0.98
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 available	Vapor Density :	Not available
Initial Boiling Point (F):	Not available	Boiling Point Range (F):	Not available
Freezing Point (F):	Not determined	Melting Point (F):	Not determined
pH	Not available	Viscosity	Not available
Solubility (ies):	Not determined		
Partition coefficient: n-octanol/water	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.

SAFETY DATA SHEET

Product Name: ZERON CATALYST

Product Code: 390 CATALYST

Date issued: 5/27/2015

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

SECTION 11 : TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	LD50 Oral mg/kg (Rat)	LD50 Dermal mg/kg (Rabbit)	LC50 Inhalation mg/L (Rat, 4 hr.)
modified polyamide resin	NA	NA	NA
polyamide resin	NA	NA	NA
benzyl alcohol	NA	NA	NA
light aromatic naphtha	8,400	NA	NA
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
cumene	2B – Possible Human Carcinogen	Not listed	Listed

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 %
1,2,4 trimethylbenzene	95-63-6	< 5%

SAFETY DATA SHEET

Product Name: ZERON CATALYST

Product Code: 390 CATALYST

Date issued: 5/27/2015

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPS) (see 40 CFR 61)

Chemical Designation	Cas No.	Weight %
cumene	98-82-8	0.1 - 1%

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

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: 5/27/2015 VER 01

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.