

Safety Data Sheet

*** Section 1 - Product and Company Identification ***

Material Name: NuSmile ZR Pediatric Crowns - Extra Light Shade

Date Effective: 02/20/2020

Manufacturer Information

NuSmile Ltd.
3315 West 12th St.
Houston, TX 77008

Phone: 713-861-0033
Fax: 713-861-1722

Email: info@nusmile.com

*** Section 2 - Hazards Identification ***

GHS Classification:

Skin Corrosion/Irritation - Category 2
Eye Damage/Irritation - Category 2B
Respiratory Sensitization - Category 1
Skin Sensitization - Category 1
Specific Target Organ Toxicity (Single Exposure) - Category 3

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

Danger

Hazard Statements

Causes skin and eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause respiratory irritation.

Precautionary Statements

Prevention

Wash thoroughly after handling.
Wear protective gloves.
Avoid breathing dust.
In case of inadequate ventilation wear respiratory protection.
Use in a well-ventilated area.

Response

If on skin: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Safety Data Sheet

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal

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

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
1314-23-4	Zirconium oxide	91-96
12055-23-1	Hafnium oxide (HfO ₂)	5
1314-36-9	Yttrium oxide (Y ₂ O ₃)	3-6
Not Available	Organic Binder	2-5
1309-37-1	Iron oxide (Fe ₂ O ₃)	1

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Get medical aid.

First Aid: Skin

Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes.

Thoroughly clean clothing and shoes before reuse. Get medical aid.

First Aid: Ingestion

Give several glasses of water. Vomiting may occur spontaneously, but do not induce! Never give anything by mouth to an unconscious person. Get medical aid.

First Aid: Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.

Not flammable.

Hazardous Combustion Products

Irritating and toxic fumes and gases may evolve during a fire.

Extinguishing Media

Use appropriate extinguishing media for surrounding fire.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Firefighters should wear full protective gear.

Safety Data Sheet

*** Section 6 - Accidental Release Measures ***

Recovery and Neutralization

Avoid creating dusts when recovering spilled product.

Materials and Methods for Clean-Up

Sweep up and place in suitable containers for waste disposal.

Emergency Measures

Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment

Wear appropriate protective equipment and clothing during clean-up.

Environmental Precautions

None

Prevention of Secondary Hazards

None

*** Section 7 - Handling and Storage ***

Handling Procedures

Wear suitable protective equipment. Use with adequate ventilation. Avoid creating dust. Wash thoroughly after handling.

Storage Procedures

Store in a cool, dry, well-ventilated area away from acids.

Incompatibilities

Oxidizing agents.

*** Section 8 - Exposure Controls / Personal Protection ***

Component Exposure Limits

Iron oxide (Fe₂O₃) (1309-37-1)

ACGIH: 5 mg/m³ TWA (respirable fraction)

OSHA: 10 mg/m³ TWA (fume and total dust); 5 mg/m³ TWA (regulated under Rouge, respirable fraction)

NIOSH: 5 mg/m³ TWA (dust and fume, as Fe)

Engineering Measures

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Personal Protective Equipment: Respiratory

If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

Personal Protective Equipment: Hands

Wear appropriate protective gloves to prevent skin exposure.

Personal Protective Equipment: Eyes

Wear safety glasses with sideshields.

Personal Protective Equipment: Skin and Body

Wear full body coveralls to prevent skin exposure.

Safety Data Sheet

*** Section 9 - Physical & Chemical Properties ***

Appearance:	White granules.	Odor:	None
Physical State:	Solid	pH:	Not Applicable
Vapor Pressure:	Not Determined	Vapor Density:	Not Applicable
Boiling Point:	Not Applicable	Melting Point:	Not Available
Solubility (H2O):	Insoluble	Specific Gravity:	6.1 g/cm3
Evaporation Rate:	Not Determined	VOC:	Not Determined
Octanol/H2O Coeff.:	Not Determined	Flash Point:	Not Applicable
Flash Point Method:	Not Applicable	Upper Flammability Limit (UFL):	Not Applicable
Lower Flammability Limit (LFL):	Not Applicable	Burning Rate:	Not Applicable
Auto Ignition:	Not Applicable		

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable under normal temperatures and pressures.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Avoid incompatibles and dust generation.

Incompatible Products

Oxidizing agents.

Hazardous Decomposition Products

Irritating and toxic fumes and gases upon thermal decomposition.

*** Section 11 - Toxicological Information ***

Acute Toxicity

Component Analysis - LD50/LC50

Iron oxide (Fe2O3) (1309-37-1)

Oral LD50 Rat >10000 mg/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

Causes skin irritation.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

Causes eye irritation.

Potential Health Effects: Ingestion

May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.

Potential Health Effects: Inhalation

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May be harmful if inhaled.

Safety Data Sheet

Respiratory Organs Sensitization/Skin Sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects.

Carcinogenicity

A: General Product Information

This product is not reported to have any carcinogenic effects.

B: Component Carcinogenicity

Iron oxide (Fe₂O₃) (1309-37-1)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Supplement 7 [1987]; Monograph 1 [1972] (Group 3 (not classifiable))

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

May cause respiratory irritation.

Specified Target Organ General Toxicity: Repeated Exposure

This product is not reported to have any specific target organ toxicity repeat effects.

Aspiration Respiratory Organs Hazard

Not an aspiration hazard.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

This product is not reported to have any ecotoxicity effects.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Persistence/Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility in Soil

No information available for the product.

*** Section 13 - Disposal Considerations ***

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

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

*** Section 14 - Transportation Information ***

DOT Information

Shipping Name: Not Regulated

Safety Data Sheet

*** Section 15 - Regulatory Information ***

Regulatory Information

US Federal Regulations

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Zirconium oxide	1314-23-4	No	Yes	No	No	No	No
Iron oxide (Fe ₂ O ₃)	1309-37-1	Yes	Yes	Yes	Yes	Yes	No

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Iron oxide (Fe ₂ O ₃)	1309-37-1	1 %

Additional Regulatory Information

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Zirconium oxide	1314-23-4	Yes	DSL	EINECS
Hafnium oxide (HfO ₂)	12055-23-1	Yes	DSL	EINECS
Yttrium oxide (Y ₂ O ₃)	1314-36-9	Yes	DSL	EINECS
Iron oxide (Fe ₂ O ₃)	1309-37-1	Yes	DSL	EINECS

*** Section 16 - Other Information ***

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Literature References

Available on request.

End of Sheet