SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: 105515

Product Name: Brilliant Glow

Revision Date: Jan 23, 2020 **Date Printed:** Jan 24, 2020

Version: 2.0 **Supersedes Date:** Nov 17, 2017

Manufacturer's Name: ZENEX International

Address: One Zenex Circle Cleveland, OH, US, 44146

Emergency Phone: 1-800-535-5053

Information Phone Number: (440)786-7000

Fax:

Product/Recommended Uses: Acid Based Wheel Cleaner

SECTION 2) HAZARDS IDENTIFICATION

Classification

Corrosive to Metals - Category 1

Acute Toxicity Oral - Category 4

Acute Toxicity Dermal - Category 3

Acute Toxicity Inhalation - Category 4

Skin Corrosion - Category 1

Serious Eye Damage - Category 1

Pictograms

Signal Word

Danger

Hazardous Statements - Physical

H290 - May be corrosive to metals

Hazardous Statements - Health

H311 - Toxic in contact with skin

H332 - Harmful if inhaled

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P280 - Wear protective gloves, protective clothing, eye protection and face protection.

P264 - Wash face, hands, and any exposed skin thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P260 - Do not breathe mist, vapors, or spray.

P271 - Use only outdoors or in a well-ventilated area.

P234 - Keep only in original packaging.

Precautionary Statements - Response

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

P310 - Immediately call a POISON CENTER or doctor.

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

P363 - Wash contaminated clothing before reuse.

P312 - Call a POISON CENTER or doctor if you feel unwell.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 - Immediately call a POISON CENTER or doctor.

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P330 + P331 - Rinse mouth. Do NOT induce vomiting.

P390 - Absorb spillage to prevent material damage.

Precautionary Statements - Storage

P405 - Store locked up.

P406 - Store in a corrosive resistant container with a resistant inner liner.

Precautionary Statements - Disposal

P501 - Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 3) COMPOSITION, INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0007664-93-9	SULFURIC ACID	10% - 20%
0007664-38-2	PHOSPHORIC ACID	1% - 5%
0012125-01-8	AMMONIUM FLUORIDE	1% - 3%
0000111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	1% - 3%
0007664-39-3	HYDROGEN FLUORIDE	0.1% - 1%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

Ingestion

IF SWALLOWED: Rinse moth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms/Effects, Acute and Delayed

CONTAINS HYDROFLUORIC ACID
EYES: Corrosive; causes immediately severe burns of the eye and eyelids. If not quickly removed by thorough irrigation with water, there may be prolonged or permanent visual impairment or total loss of sight.
SKIN: Corrosive and extremely irritating; may produce severe chemical burns which are slow in healing. Subcutaneous tissue may be affected, becoming blanched and bloodless. Concentrations of less than 20% HF may cause delayed painful erythema up to 24 hours after contact. Latent skin burns and necrosis with slow healing can occur even at concentrations of 2% HF. Delayed burns begin with itching sensation and proceed to burning and pain.
INHALATION: Inhaling HF can seriously damage the lungs. Delayed reactions up to and including fatal pulmonary edema may be not apparent for hours after the initial exposure. High airborne concentrations may be fatal.
INGESTION: Corrosive; swallowing hydrofluoric acid causes severe burns of the mucous membranes of the mouth, throat, esophagus, and stomach.

Indication of Immediate Medical Attention and Special Treatment Needed

Treat symptomatically and supportively. This product contains hydrofluoric acid. Contact your poison center for the latest advice on treatment.
For eye contact: Carefully evaluate for eye damage. Exposure to dilute solutions may result in delayed symptoms of ocular damage.
For skin contact: decontamination of the contact area is of primary importance. Symptoms may be delayed for several hours. Specific treatment is controversial with no single treatment clearly superior. Topical calcium gluconate gel or magnesium oxide paste have been successful. Calcium gluconate infiltration may be considered in some cases. Systemic absorption may occur and may require treatment with parenteral calcium salts.
For ingestion: Administer fluoride binding substance. Consider ng or soft orogastric suction and lavage with 10% calcium gluconate if the ingestion is recent and spontaneous emesis has not occurred. Monitor and treat hypocalcemia and hypomagnesemia, parenterally as needed. Observe and evaluate patient for oral and GI burns.
For inhalation: Monitor respiratory distress. Respiratory symptoms may be delayed up to 24 hours.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing media suitable for surrounding fire and local circumstances.

Unsuitable Extinguishing Media

None.

Fire-Fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Specific Hazards Arising from the Chemical

None known.

Hazard combustion products

Smoke, fumes or vapors, and oxides of carbon.

Special Protective Actions

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

Emergency Procedure

Use protection recommended in Section 8. Follow all firefighting procedures in Section 5.

Recommended Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

Personal Precautions

Do not breath mist, vapors or spray. Wear protective gloves, protective clothing and eye/face protection.

Environmental Precautions

See Section 12 for additional Ecological Information.

Methods and Materials for Containment and Cleaning up

Prevent further leakage or spillage if safe to do so. Keep in suitable, closed containers for disposal. For waste disposal, see Section 13 of the SDS.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use.
Do not get in eyes, on skin or on clothing.
Do not breathe vapors or mists.
Use good personal hygiene practices.
Eating, drinking and smoking in work areas is prohibited.

Remove contaminated clothing and protective equipment before entering eating areas.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements

Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Store at temperatures under 120°F.

FOR INDUSTRIAL AND INSTITUTIONAL USE ONLY. FOR USE BY TRAINED PERSONNEL ONLY. KEEP FROM FREEZING.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over- boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA Carcinogen	OSHA Skin designation	OSHA Tables (Z1, Z2, Z3)	ACGIH TWA (mg/m3)
AMMONIUM FLUORIDE								2.5
ETHYLENE GLYCOL MONOBUTYL ETHER	240	50				1	1	
HYDROGEN FLUORIDE	2.5	3 (a)					1,2	2.5
PHOSPHORIC ACID	1						1	1
SULFURIC ACID	1						1	0.2 (T)

Chemical Name	ACGIH TWA (ppm)	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)
AMMONIUM FLUORIDE				A4	Bone dam; fluorosis	A4; BEI		
ETHYLENE GLYCOL MONOBUTYL ETHER	20			A3	Eye & URT irr	A3; BEI	24	5
HYDROGEN FLUORIDE	0.5		C 2	A4	URT, LRT, skin & eye irr; fluorosis	Skin; BEI	2.5	3
PHOSPHORIC ACID		3			URT, eye, & skin irr		1	
SULFURIC ACID				A2	Pulm func	A2 (M)	1	

Chemical Name	NIOSH STEL (mg/m3)	NIOSH STEL (ppm)	NIOSH Carcinogen
AMMONIUM FLUORIDE			
ETHYLENE GLYCOL MONOBUTYL ETHER			
HYDROGEN FLUORIDE			
PHOSPHORIC ACID	3		
SULFURIC ACID			

(C) - Ceiling limit, (M) - Mist, (T) - Thoracic fraction, A2 - Suspected Human Carcinogen, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, A4 - Not Classifiable as a Human Carcinogen, BEI - Substances for which there is a Biological Exposure Index or Indices, dam - Damage, func - Function, irr - Irritation, LRT - Lower respiratory tract, pulm - Pulmonary, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	9.35 lb/gal
Density VOC	0.12 lb/gal
% VOC	1.25%

Appearance	Clear liquid
Odor Threshold	N.A.
Odor Description	Acid odor
pH	1
Water Solubility	Soluble
Flammability	Will not burn
Flash Point	N.A.
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Pressure	N.A.
Vapor Density	N.A.
Melting Point	N.A.
Freezing Point	N.A.
Low Boiling Point	N.A.
High Boiling Point	N.A.
Decomposition Pt	N.A.
Auto Ignition Temp	N.A.
Evaporation Rate	N.A.
VOC Composite Partial Pressure	N.A.

SECTION 10) STABILITY AND REACTIVITY

Stability

The product is stable under normal storage conditions.

Reactivity

Not reactive under normal storage conditions.

Conditions to Avoid

None.

Incompatible Materials

Strong oxiding agents. Bases.

Hazardous Reactions/Polymerization

None under normal processing. Hazardous polymerization does not occur.

Hazardous Decomposition Products

Smoke, fumes or vapors, and oxides of carbon.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Causes severe skin burns and eye damage.

Serious Eye Damage/Irritation

Causes serious eye damage.

Carcinogenicity

No data available.

Germ Cell Mutagenicity

No data available.

Reproductive Toxicity

No data available.

Respiratory/Skin Sensitization

No data available.

Specific Target Organ Toxicity - Single Exposure

No data available.

Specific Target Organ Toxicity - Repeated Exposure

No data available.

Aspiration Hazard

No data available.

Acute Toxicity

Toxic in contact with skin

Harmful if inhaled or swallowed

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

0000111-76-2 ETHYLENE GLYCOL MONOBUTYL ETHER

The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

0007664-93-9 SULFURIC ACID

The substance can be absorbed into the body by inhalation of its aerosol.

Potential Health Effects - Miscellaneous

0000111-76-2 ETHYLENE GLYCOL MONOBUTYL ETHER

Can be absorbed through the skin in harmful amounts. May cause injury to the kidneys, liver, blood and/or bone marrow. Repeated overexposure may result in damage to the blood. Eye contact may cause corneal injury. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

0007664-38-2 PHOSPHORIC ACID

Ingestion may cause any of the following: burns to mouth and stomach. Inhalation of vapor may cause any of the following: burns to respiratory system. Skin or eye contact may cause any of the following: burns.

0000111-76-2 ETHYLENE GLYCOL MONOBUTYL ETHER

LC50 (female rat): 450 ppm (4-hour exposure) (2)
LC50 (male rat): 486 ppm (4-hour exposure) (2)

LD50 (oral, male weanling rat): 3000 mg/kg (1)
LD50 (oral, 6-week old male rat): 2400 mg/kg (1)
LD50 (oral, yearling male rat): 560 mg/kg (1)
LD50 (oral, female rat): 530 mg/kg; 2500 mg/kg (1)LD50 (oral, male mouse): 1230 mg/kg (1)
LD50 (oral, rabbit): 320 mg/kg (1)
LD50 (dermal, male rabbit): 406 mg/kg (cited as 0.45 mL/kg) (1)

0007664-93-9 SULFURIC ACID

LC50 (rat): 510 mg/m3 (2 hour-exposure) (255 mg/m3 - equivalent 4-hour exposure) (1)
LC50 (mouse): 320 mg/m3 (2-hour exposure) (160 mg/m3 - equivalent 4-hour exposure) (1)

LD50 (oral, rat): 2140 mg/kg (2)

0007664-38-2 PHOSPHORIC ACID

LC50 (mouse): 25.5 mg/m3 (duration of exposure not specified) (4)

LD50 (oral, rat): 3500 mg/kg (85% aqueous solution); 4200 mg/kg (80% aqueous solution)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

No data available.

Persistence and Degradability

Not determind.

Bio-Accumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

Not determind.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) Transport Information

	IATA Information	IMDG Information	U.S. DOT Information
UN number:	UN2922	UN2922	UN2922
Proper shipping name:	Corrosive liquids, toxic, n.o.s. (Hydrofluoric acid, Sulfuric acid, Phosphoric acid)	Corrosive liquids, toxic, n.o.s. (Hydrofluoric acid, Sulfuric acid, Phosphoric acid)	Corrosive liquids, toxic, n.o.s. (Hydrofluoric acid, Sulfuric acid, Phosphoric acid)
Hazard class:	8 (6.1)	8 (6.1)	8 (6.1)
Packaging group:	II	II	II
Hazardous substance (RQ):	No Data Available	No Data Available	No Data Available
Marine Pollutant:	No Data Available	No Data Available	No Data Available
Note / Special Provision:	No Data Available	No Data Available	No Data Available
Toxic-Inhalation Hazard:	No Data Available	No Data Available	No Data Available

SECTION 15) REGULATORY INFORMATION

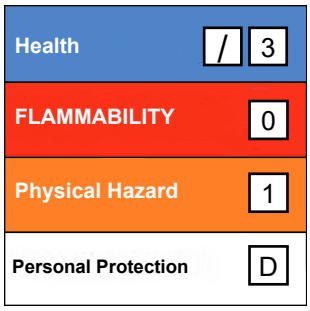
CAS	Chemical Name	% By Weight	Regulation List
0007664-93-9	SULFURIC ACID	10% - 20%	SARA313, CERCLA, SARA312, TSCA, ACGIH, California Proposition 65 Cancer, OSHA
0007664-38-2	PHOSPHORIC ACID	1% - 5%	CERCLA, SARA312, TSCA, ACGIH, OSHA
0007664-39-3	HYDROGEN FLUORIDE	0.1% - 1%	SARA313, CERCLA, HAPS, SARA312, TSCA, RCRA, ACGIH, OSHA,
0012125-01-8	AMMONIUM FLUORIDE	1% - 3%	SARA313,CERCLA, SARA312, TSCA, ACGIH
0000111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	1% - 3%	SARA313, CERCLA, SARA312, VOC, TSCA, ACGIH, OSHA,

SECTION 16) OTHER INFORMATION

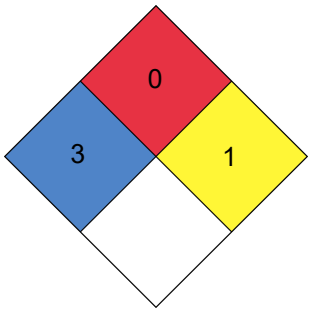
Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS



NFPA



(*) - Chronic effects

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