SAFETY DATA SHEET

Section 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: Rainbow Burnt Umber

Product Form: Mixture

1.2 Product Use: Pigments for Cement and Gypsum Products

1.3 Supplier/Manufacturer: Empire Blended Products Inc.
250 Hickory Lane
Bayville, NJ 08721

Phone Number: (732) 269-4949

1.4 Emergency Number: CHEMTREC (800) 424-9300

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the Chemical:

Hazard Class:

Skin Irritation/Corrosion	2
Serious Eye Damage/Irritation	1
Carcinogenicity	1A
Toxic to Reproduction (Fertility)	2
Toxic to Reproduction (Unborn Child)	2
Specific Target Organ Toxicity – Single Exposure (Lungs)	1
Specific Target Organ Toxicity – Single Exposure (Respiratory Tract)	3
Specific Target Organ Toxicity – Repeated Exposure (CNS)	2
Specific Target Organ Toxicity – Repeated Exposure (Lungs)	2

2.2 Label Elements:

Hazard Pictogram:

Signal Word: Danger

Hazard Statement: Causes serious eye damage. Causes skin irritation. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs (lungs). May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure (Central nervous system (CNS)). May cause damage to organs through prolonged or repeated exposure if inhaled (lungs).

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves and eye/face protection. Do not breathe dust or mist. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Do not taste or swallow.

Response:	If Inhaled:	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	If on Skin:	Wash with plenty of soap and water. Take off contaminated clothing/ wash contaminated clothing before reuse.
	If in Eyes:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Storage:	Store locked up. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.	
Disposal:	Dispose of contents and container in accordance with all local, regional, national, and international regulations.	

2.3 Additional Information:

Hazards not otherwise classified: Corrosive to digestive tract. Causes digestive tract burns.

63.9% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures:

Ingredient	CAS #	Wt. %
Umber	12713-03-0	43-49 %
Crystalline Quartz Silica	14808-60-7	12-18 %
Manganese Oxide	1313-13-9	5-10 %
Manganese	7439-96-5	5-10 %
Aluminum Oxide	1344-28-1	3-5 %
Calcium Oxide	1305-78-8	3-5 %
Magnesium Oxide	1309-48-4	1-3 %
Phosphorous Pentoxide	1314-56-3	1-3 %

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section. Occupational exposure limits, if available, are listed in section 8.

Section 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:

Eye: In case of contact, get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. In case of contact with eyes, flush eyes with plenty of water for at least 30 minutes. Chemical burns must be treated promptly by a physician.

Skin: In case of contact, flush skin with plenty of water for at least 30 minutes. Get medical attention immediately. Immediately remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation: Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, if breathing is irregular or respiratory arrest occurs, provide artificial respiration, or oxygen by a trained professional, using a pocket type respirator.

Ingestion: Get medical attention immediately. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most Important Symptoms and Effects, both Acute and Delayed:

Eye: Causes serious eye damage. May cause mechanical irritation (abrasion). Corrosive symptoms of reddening, tearing, swelling, burning and possible permanent damage.

Skin: Causes skin irritation. No known acute effects. May cause mechanical irritation (abrasion). Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations. Corrosive symptoms of reddening, itching, swelling, burning, and possible permanent damage. Causes irritation with symptoms of reddening, itching, and swelling.

Inhalation: May cause respiratory irritation. No known acute effects. Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with symptoms of coughing, wheezing, fatigue, loss of appetite, fever, shortness of breath, and changes in chest x-ray. May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations.

Ingestion: Corrosive to the digestive tract. Causes burns. May cause burns to mouth, throat and stomach. No known acute effects. Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations. Corrosive with symptoms of coughing, burning, ulceration, and pain.

4.3 Indication of Any Immediate Medical Attention and Special Treatments Needed:

Note to Physicians: Treat symptomatically. No specific treatment.

Section 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media:

Suitable Extinguishing Media: Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.

Unsuitable Extinguishing Media: None known.

5.2 Special Hazards Arising From the Chemical: Toxic and irritating gases/fumes may be given off during burning or thermal decomposition. Water runoff from firefighting may be corrosive.

Products of Decomposition: Decomposition products may include the following materials: phosphorous oxides, metal oxide/oxides.

5.3 Special Protective Equipment and Precautions for Fire Fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

6.2 Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and Materials for Containment/Cleanup: Move containers from spill area. Approach release from upwind. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal. Prevent entry into sewers, water courses, basements or confined areas.

Section 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling: Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

7.2 Conditions for Safe Storage, Including Any Incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Empty containers retain product residue and can be hazardous. Do not reuse container.

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Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control Parameters:

Exposure Guidelines:

Ingredient	ACHIG TLV - TWA	OSHA PEL
Umber	N/A	CEIL: 5 mg/m^3
Crystalline Quartz Silica	0.025 mg/m^3 8 hours (respirable fraction)	TWA: 250 mppcf / (%SiO2+5) 8 hours TWA: 10 mg/m^3 / (%SiO2+2) 8 hours
Manganese Oxide	0.2 mg/m^3 8 hours (respirable fraction) 0.1 mg/m^3 8 hours (inhalable fraction)	CEIL: 5 mg/m^3
Manganese	0.2 mg/m^3 8 hours (respirable fraction) 0.1 mg/m^3 8 hours (inhalable fraction)	CEIL: 5 mg/m^3
Aluminum Oxide	1 mg/m^3 8 hours (respirable fraction)	TWA: 5 mg/m^3 8 hours (respirable fraction) TWA: 15 mg/m^3 8 hours (total dust)
Calcium Oxide	2 mg/m^3 8 hours	TWA: 5 mg/m^3 8 hours
Magnesium Oxide	10 mg/m^3 8 hours (inhalable fraction)	TWA: 15 mg/m^3 8 hours (total particulates)

If this product contains ingredient with exposure limits, personal, workplace, atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

8.2 Exposure Controls:

Engineering Controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminate below any recommended or statutory limits.

8.3 Individual Protective Measures:

Personal Protective Equipment:

Eye/Face Protection: Protective goggles with side shield or tightly fitting protective goggles.

Skin Protection: Permeation resistant clothing and foot protection. Permeation resistant gloves.

Respiratory Protection: The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline. NIOSH approved, air-purifying particulate respirator with N-95 filters.

General Hygiene Considerations: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance: Powder

Color: Brown

Odor: Odorless

Odor Threshold: N/A

Physical State: Solid

pH: N/A

Viscosity: N/A

Freezing Point: N/A

Boiling Point: N/A

Melting Point: N/A

Flash Point: N/A

Evaporation Rate: N/A

Lower Flammability Limit: N/A

Vapor Pressure: N/A

Vapor Density: N/A

Relative Density: N/A

Bulk Density: 300 to 1000 kg/m^3

Lower Explosion Limit: N/A

Upper Explosion Limit: N/A

Solubility in Water: Very slightly soluble in cold water

Coefficient of Water/Oil Distribution: N/A

Auto-ignition Temperature: N/A

Decomposition Temperature: N/A

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical Stability:	This product is stable.
10.3 Possibility of Hazardous Reactions:	No hazardous reactions known under conditions of normal storage and use.
10.4 Conditions to Avoid:	No specific data.
10.5 Incompatible Materials:	No specific data.
10.6 Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Likely routes of exposure: Skin contact, eye contact, inhalation, and ingestion.

Eye: Causes serious eye damage. May cause mechanical irritation (abrasion). Corrosive symptoms of reddening, tearing, swelling, burning and possible permanent damage.

Skin: Causes skin irritation. No known acute effects. May cause mechanical irritation (abrasion). Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations. Corrosive symptoms of reddening, itching, swelling, burning, and possible permanent damage. Causes irritation with symptoms of reddening, itching, and swelling.

Inhalation: May cause respiratory irritation. No known acute effects. Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with symptoms of coughing, wheezing, fatigue, loss of appetite, fever, shortness of breath, and changes in chest x-ray. May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations.

Ingestion: Corrosive to the digestive tract. Causes burns. May cause burns to mouth, throat and stomach. No known acute effects. Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations. Corrosive with symptoms of coughing, burning, ulceration, and pain.

Acute Toxicity:

Ingredient	LD50- Oral
Manganese Oxide	3478 mg/kg, rat
Manganese	>5000 mg/kg, rat
Aluminum Oxide	>5000 mg/kg, rat
Magnesium Oxide	>5000 mg/kg, rat

11.2 Delayed, Immediate and Chronic Effects of Short- and Long- Term Exposure:

Short Term Exposure: N/A

Long Term Exposure:

Potential Delayed Effects – N/A

General – May cause damage to organs through prolonged or repeated exposure if inhaled. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis. Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

Carcinogenicity – May cause cancer. Risk of cancer depends on duration and level of exposure.

Ingredient	IARC	NTP	OSHA
Crystalline Quartz Silica	1 – Carcinogenic to humans	Proven	N/A
Umber	N/A	N/A	N/A
Manganese Oxide	N/A	N/A	N/A
Manganese	N/A	N/A	N/A
Aluminum Oxide	N/A	N/A	N/A
Calcium Oxide	N/A	N/A	N/A
Magnesium Oxide	N/A	N/A	N/A
Phosphorous Pentoxide	N/A	N/A	N/A

Mutagenicity – No known significant effects or critical hazards.

Teratogenicity – Suspected of damaging the unborn child.

Developmental Effects – No known significant effects or critical hazards.

Fertility Effects – Suspected of damaging fertility.
Skin Irritation/Corrosion – Calcium Oxide = Corrosive. Magnesium Oxide = Slight Irritant. Phosphorous Pentoxide = Corrosive.
Eye Irritation/Corrosion – Calcium Oxide = Severe Irritant. Magnesium Oxide = Slight Irritant. Phosphorous Pentoxide = Corrosive.
STOT Single Exposure –

Ingredient	Category	Target Organs
Crystalline Quartz Silica	3	Respiratory Tract Irritation
Manganese Oxide	3	Respiratory Tract Irritation
Aluminum Oxide	3	Respiratory Tract Irritation
Calcium Oxide	1	Lungs
Magnesium Oxide	3	Respiratory Tract Irritation
Phosphorous Pentoxide	1	Lungs

STOT Repeated Exposure –

Ingredient	Category	Route of Exposure	Target Organs
Umber	2	Not determined	CNS
Manganese Oxide	2	Not determined	CNS
Manganese	2	Not determined	CNS
Aluminum Oxide	2	Inhalation	Lungs

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

Ingredient Name	Result	Species	Exposure
Manganese Oxide	Acute EC50 >0.07 mg/l	Algae	72 hours
	Acute EC50 >0.0735 mg/l	Daphnia	48 hours
	Acute EC50 >1000 mg/l	Micro-organism	3 hours
	Acute LC50 >0.05 mg/l	Fish	96 hours
	Chronic NOEC 0.00735 mg/l	Daphnia	8 days
Manganese	Acute LC50 >1000 mg/l	Fish	48 hours
Calcium Oxide	Acute EC50 159.6 mg/l	Daphnia	24 hours
	Acute LC50 1070 mg/l	Fish	96 hours
Aluminum Oxide	Acute EC50 >100 mg/l	Algae	72 hours
	Acute EC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
Phosphorous Pentoxide	Acute LC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 50 to 100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
	Acute LC50 32 to 56 mg/l	Fish	96 hours
	Acute NOEC 50 mg/l	Daphnia	48 hours
	Acute NOEC 100 mg/l	Daphnia	48 hours
	Acute NOEC 32 mg/l	Fish	96 hours
	Acute MOEC 100 mg/l	Fish	96 hours

12.2 Persistence and Degradability:

Manganese Oxide = Readily Biodegradable
Aluminum Oxide = Readily Biodegradable

12.3 Bioaccumulative Potential: N/A

12.4 Mobility in Soil: N/A

12.5 Other Adverse Effects: No known significant effects or critical hazards.

Section 13: DIPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Disposal Method: The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental control laws.

RCRA Classification: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24).

Section 14: TRANSPORTATION INFORMATION

14.1 DOT (US): Not regulated

14.2 IMDG: Not regulated

14.3 IATA: Not regulated

Section 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislations Specific for the Chemical:

SARA 311/312: Immediate (acute) health hazard. Delayed (chronic) health hazard.

SARA Title III Section 302: Phosphorous Pentoxide (CAS# 7723-14-0) Concentration = <1%

SARA Title III Section 313: Umber (CAS# 12713-03-0) Concentration = 43-49%
Manganese Oxide (CAS# 1313-13-9) Concentration = 5-10%
Manganese (CAS# 7439-96-5) Concentration = 5-10%
Aluminum Oxide (CAS# 1344-28-1) Concentration = 3-5%

US EPA CERCLA: Manganese Oxide (CAS# 1313-13-9)
Umber (CAS# 12713-03-0)

US Toxic Substance Control Act: This material is included in the TSCA inventory as a naturally occurring chemical substance as described in 40 CFR 710.4 (b).

STATE REGULATIONS:

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

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Ingredient	CAS#	State Code	Concentration (%)
Manganese	7439-96-5	MA- S, NJ- HS, PA- RTK HS	5-10 %
Crystalline Quartz Silica	14808-60-7	MA- S, NJ- HS, PA- RTK HS	12-18 %
Aluminum Oxide	1344-28-1	MA- S, NJ- HS, PA- RTK HS	3-5 %
Calcium Oxide	1305-78-8	MA- S, NJ- HS, PA- RTK HS	3-5 %
Magnesium Oxide	1309-48-4	MA- S, NJ- HS, PA- RTK HS	1-3 %
Phosphorous Pentoxide	1314-56-3	MA- S, NJ- HS, PA- RTK HS	1-3 %
Umber	12713-03-0	PA- RTK HS	43-49 %
Manganese Oxide	1313-13-9	PA- RTK HS	5-10 %
Water	7732-18-5		5-10 %

Massachusetts Substances: MA- S
Massachusetts Extraordinary Hazardous Substances: MA- Extra HS
New Jersey Hazardous Substances: NJ- HS
Pennsylvania RTK Hazardous Substances: PA- RTK HS
Pennsylvania Special Hazardous Substances: PA- Special HS

California Prop. 65: Warning! This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient	Concentration (%)	Cancer	Reproductive
Crystalline Quartz Silica	12-18%	YES	
Arsenic	<0.1%	YES	
Lead	<0.1%	YES	YES
Cadmium	<0.1%	YES	YES
Mercury	<0.01%		YES

HMIS- Hazardous Material Information System:

Health: 3
Flammability: 1
Physical: 0

NFPA- National Fire Protection Association:

Health: 3
Fire: 0
Reactivity: 0

Hazard Rating:

0 = minimal 1 = slight 2 = moderate 3 = severe 4 = extreme

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Section 16: OTHER INFORMATION

Date of Preparation: July 1, 2015

Version: 1.0

Revision Date: July 1, 2015

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

Prepared by: Empire Blended Products Inc.

Prepared for: Empire Blended Products Inc.