K-Deer LA, Inc.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE MIXTURE OF THE COMPANY UNDERTAKING

1.1		**BLASTITE, BLITZBLAST, DURATRED, FASTBLAST, NIAGARA BLAST,EXOBLAST, DURALUM** G52E, G52E P, G52E RK, G82, G82P, GW, GW VIT, HBD, HC, K5, LBD, RF, DCF, LT, LTR, C ART, C AR RK, C PRT, C PR RK, LT C AT, LT C ART, LT C ARRK, LT C PT, LT C PRT, XA, SK **DURABLU** C ABRT, C PBRT, LT C ABRT, LT C PBRT, C A BR RK, C PBR RK, LT C ABRRK, LT CPBR RK
	Product Identifier	**BLASTITE, BLITZBLAST, DURATRED, FASTBLAST, NIAGARA BLAST,EXOBLAST,**
	GHS Product Identifier	**DURALUM** G52E, G52E P, G52E RK, G82, G82P, GW, GW VIT, HBD, HC, K5, LBD,RF, DCF, LT, LTR, C ART, C AR RK, C PRT, C PR RK, LT C AT, LT C ART, LT C ARRK, LT C PT, LT C PRT, XA, SK **DURABLU** C ABRT, C PBRT, LT C ABRT, LT C PBRT, C A BR RK, C PBR RK, LT C ABR RK, LT CPBR RK
	Chemical Name	**Brown Aluminum Oxide**
	CAS No.	Mixture
	ENECS No.	Mixture
	REACH Registration No.	Not Available
1.2	Relevant Identified Uses of The Substance of Mixture And Uses Advised Against	
	Identified Use(s)	Consult the supplier
	Uses Advised Against	Users are recommended to seek future advice
1.3	Details of The Supplier Of The Safety Data Sheet	
	Company Identification	K-Deer La. In
	Address	9358 Stephens St. Pica Rivera, CA, 90680
	Telephone	562-568-0588
	E-Mail (Competent Person)	helenpan@kdeerla.com
1.4	Emergency Telephone Number –	Tel 562-568-0588， 562-889-7862

SECTION 2: HAZARDS IDENTIFICATION

2.1	Classification Of The Substance Or Mixture	
2.1.1	Regulation (EC) No. 1272/2008 (CLP) – (3.9/2)	
2.1.2	Directive 67/548/EEC & Directive 1999/46/EC - HARMFUL	
2.2	Label Elements	
2.2.1	Label Elements According to Regulation (EC) No. 1272/2008 (CLP)	
	GHS Product Identifier(EU)	
	Hazard	Signal word(s) WARNING
	Pictogram(s)	
	Hazard Statement(s)	H373: May cause damage to organs through prolonged or repeated exposure.
	Precautionary Statement(s)	P260: Do not breathe dust P340+P341: IF INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a Position comfortable for breathing.
2.2.2	Label Elements According to Directive 67/548/EEC & Directive 1999/45/EC	
	Hazard Symbol	
	Risk phrase	R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
	Safety Phrases	S38: In case of insufficient ventilation, wear suitable Respiratory equipment.
2.3	Other Hazards	GHS Classification (USA): Hazardous under OSHA Hazard Communication Standard-HARMFUL (Carcinogen) HMIS: Health-1, Flammability-0, Reactivity-0 Hazard Statement(s) H335: May cause respiratory irritation. Precautionary Statement(s) P304 + P341: IF INHALED: if breathing is difficult, remove Victim to fresh air and keep at rest in a position comfortable for breathing. WHIMS/GHS Classification (Canada): Hazardous under WHMIS. D2B-Material Causing Other Toxic Effects (Carcinogen) Hazard Statement(s) H373: May cause damage to organs through prolonged or Repeated exposure.

Precautionary Statement(s)
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye Protection/face protection.
P304 + P341: IF INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

2.4 Additional Information See Section 16 for additional dust hazard information.

Potential Health Effects

Inhalation Irritation of the respiratory tract (Dust). Crystalline silica is implicated in pulmonary disease due to prolonged and/or multiple exposures.

Skin Contact Mechanical irritation.

Eye Contact Mechanical irritation, corneal scratches.

Ingestion Harmful if swallowed; mechanical and chemical irritant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

EC Classification No. 1272/2008/EC and GHS Classification

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Pictogram(s) and Hazard Statement(s)
Aluminum Oxide	>90	1344-28-1	215-691-6	NA	None None

Impurities: = SiO2 + Si + C + Fe + Al = <1.0% * - *May contain crystalline silica*

EC Classification No. 67/548/EEC

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration	Hazard Pictogram(s) and Risk(R) Phrase(es)
Aluminum Oxide	>90	1344-28-1	215-691-6	NA	None None
Silicon Dioxide*	<5	7631-86-9	231-545-4	NA	 R48/20

Impurities: = SiO2 + Si + C + Fe + Al = <1.0% * - *May contain crystalline silica*

3.3 **Additional Information** - For full text of H phrases see section 16. For full text of R phrases see section 16. Non-Hazardous ingredients are not listed and make up the balance of the product.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

	Inhalation	Remove patient from exposure. Keep patient at rest and give oxygen if breathing difficult. If symptoms develop, obtain medical attention.
	Skin Contact	Remove contaminated clothing immediately and drench affected skin with plenty of water. If irritation (redness, rash, blistering) develops, get medical attention.
	Ingestion	Avoid ingestion. Do not induce vomiting. Get immediate medical attention.
4.2	**Most Important Symptoms And Effects, Both Acute And Delayed**	**Acute:** Cough and Shortness of breath. **Delayed and Chronic Effects:** This product contains crystalline silica, which poses an inhalation hazard, especially upon chronic exposure. Silicosis may cause an emphysemic-like illness with serious health concerns. Crystalline silica is also considered a carcinogen by several national and international agencies.
4.3	**Indication Of The Immediate Medical Attention And Special Treatment Needed**	Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1	**Extinguishing Media**	
	Suitable Extinguishing Media	Extinguisher suitable for ordinary combustible materials. Class A extinguishing agents.
	Unsuitable Extinguishing Media	None known.
5.2	**Special Hazards Arising From The Substance Or Mixture**	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.
5.3	**Advice for Fire-Fighters**	Extinguish preferably with dry chemical, foam or water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	**Personal Precautions, Protective Equipment And Emergency Procedures**	Avoid dust generation. Ensure full personal protection (including respiratory protection) during removal of spillages.
6.2	**Environmental Precautions**	Ventilation recommended.
6.3	**Methods And Material For Containment And Cleaning Up**	Collect mechanically and dispose of according to Section 13.Transfer to a lidded container for disposal or recovery. Avoid dust generation. Ensure adequate ventilation.
6.4	**Reference To Other Sections**	See Also Section 7, 8, 13.
6.5	**Additional Information**	None

SECTION 7: HANDLING AND STORAGE

7.1	**Precautions For Safe Handling**	Avoid contact with skin and eyes. Wash hands before eating, drinking or smoking. Avoid accumulation of dust. Use only in well-ventilated areas.
7.2	**Conditions For Safe Storage, Including Any Incompatibilities**	Store in the original container in a cool, dry well ventilated area. Keep containers tightly sealed.
	Storage Temperature	Ambient.
	Storage Life	Not available
	Incompatible Materials	Separate from oxidizers (oxygen), (explosives), (halogens), (compressed air) (acids), (bases) (and food chemicals) etc. in transport (and storage).
7.3	**Specific End Use(s)**	Consult the supplier.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

8.1.1 Occupational Exposure Limits

Substan	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note:
Aluminum Oxide	1344-28-1	NE	10	NE	NE	ACGIH
		NE	15 (vacated)	NE	NE	OSHA
Silicon Dioxide*	7631-86-9	NE	16 (Calculated)*	NE	NE	OSHA – 5% SiO2
		NE	6 (Calculated)*	NE	NE	OSHA – 5% Quartz

* - Based on 80 mg/m3 ÷ 5% SiO2 for Amorphous SiO2 and 30 mg/m3 ÷ 5% SiO2 for Quartz

8.1.3 PNECs and DNELs

No PNECs or DNELs available for product

8.2.2 Personal Protection Equipment

Respirators Avoid breathing dust. Assess exposure concentrations of all materials involved in the workplace. If concentrations exceed the exposure limits listed in Exposure Guidelines or irritation or other symptoms experienced, follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

	**Eye Protection**	Avoid eye contact. Wear protective eyewear (goggles, face shield, or safety glasses).
	**Gloves**	Wear protective gloves.
	**Body Protection**	Avoid skin contact. Wear suitable protective clothing and gloves.
	Engineering Controls	Provide sufficient ventilation, particularly in closed rooms. Maintain employee exposure below applicable permissible exposure limits.
	Other	Remove contaminated, saturated clothing immediately. Contaminated clothing should be thoroughly cleaned.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information On Basic Physical And Chemical Properties

Appearance	Black or Green solid granular product	Color	Black or Green
Odor	Odorless	Odor Threshold (ppm)	Not available
Melting Point (°C)/ Freezing Point (°C)	Not available	Boiling Point/Boiling Range (°C)	Not available
Flash Point (°C)	No Data	Explosive Limit Ranges	Not available
Auto Ignition Temperature (°C)	Not available	Decomposition Temperature (°C)	4892°F
Explosive Properties	None	Oxidizing Properties	Not
Flammability (Solid,	Not available	Ph (Value)	available
Gas) Evaporation Rate	N/A N/A	Vapor Pressure (mm Hg) Density (g/ml)	Not
Vapor Density	Insolubl e	Solubility (Other)	available
Partition Coefficient	Not available	Viscosity (mPa.s)	Not
(NOctanol/Water)			available

9.2 Other Information Volatile Organic Chemical (VOC) Content – Not Available.

SECTION 10: STABILITY AND REACTIVITY

10.1	**Reactivity**	Slight
10.2	**Chemical Stability**	Stable under normal conditions.
10.3	**Possibility Of Hazardous Reactions**	Not available
10.4	**Conditions To Avoid**	Not available

10.5	**Incompatible Materials**	Not available
10.6	**Hazardous Decomposition Product(s)**	Not available

SECTION 11: TOXICOLOGICAL INFORMATION

Substance	CAS No.	LD50 (Oral, Rat)	LC50 (Inhalation, Rat)	LD50 (Dermal, Rat)
Aluminum Oxide	1344-28-1	NE	NE	NE
Silicon Dioxide*	7631-86-9	10000 mg/kg	NE	5000 mg/kg

Avoid accumulation of dust.

11.1 Information on Toxicological Effects

11.1.2 Mixtures

Acute Toxicity	
Inhalation	Inhalation of the dust may cause breathlessness, coughing, tightness of the chest and difficulty in breathing.
Skin Contact	Prolonged contact may cause skin abrasion, redness, and itching.
Eye Contact	Eye irritant. May cause tearing and redness.
Ingestion	May cause headache, nausea and vomiting.
Irritation	Causes eye irritation. May cause respiratory irritation. May cause transient irritation.
Corrosively	Not to be expected.
Sensitization	No data.
Repeated Dose Toxicity	No data.
Carcinogenicity	Crystalline silica and titanium dioxide are suspect or confirmed carcinogens under ACGIH, NTP IARC, and/or the state of California (respirable particles).
Mutagenicity	No data.
Toxicity for Reproduction	No data.

11.2 Other Information None

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	No data
12.2	**Persistence and Degradability**	No data
12.3	**Bioaccumulative Potential**	The product has low potential for bioaccumulation.
12.4	**Mobility In Soil**	No data
12.5	**Results Of PBT And vPvB**	No data.

12.6	**Assessment** **Other Adverse Effects**	No data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste Treatment Methods**	Solid or chemical waste generators must determine whether a discarded waste is classified as a harzardous waste. U.S. EPA guidelines for the classifications determination are listed in 40 CFR parts 261.3. Disposal should be in accordance with local, state or national legislation. Containers must not be punctured or destroyed by burning, even when empty.
13.2	**Additional Information**	None

SECTION 14: TRANSPORT INFORMATION

Land Transport(ADR/RID) (c)(d)		**Land Transport(Within USA) (b)(d)**	
UN Number	None	UN Number	None
Proper Shipping Name	Not classified as dangerous for transport.	Proper Shipping Name	Not classified as dangerous for transport.
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None
Packing Group	None	Packing Group	None
Hazard Label(s)	None	Hazard Label(s)	None
Environmental Hazards	None	Environmental Hazards	None
Special Precautions For	None	Special Precautions For User	None
Sea Transport(IMDG) (c)		**Air Transport(ICAO/IATA) (c) (d)**	
UN Number	None	UN Number	None
Proper Shipping Name	Not classified as dangerous for	Proper Shipping Name	Not classified as dangerous for
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None
Packing Group	None	Packing Group	None
Hazard Label(s)	None	Hazard Label(s)	None
Environmental Hazards	None	Environmental Hazards	None
Special Precautions For	None	Special Precautions For User	None

(b)-ORM-D may be applicable within the USA for package sizes less than 30kg.

(c)–Consult with transport provider.

(d)–Check relevant regulations for Special Provisions.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture

15.1.1 EU Regulations

Authorisations And/Or Restrictions On Use	Consult the supplier.
European Union (EINECS/ELINCS)	All chemicals listed.
German WGK Number	Not available

15.1.2 National Regulations

USA

TSCA (Toxic Substance Control Act)	Listed
SARA 311/312 -Hazard Categories	Acute Health, Chronic Health
SARA 302 -Extremely Hazardous	Listed -None
Substances	Listed -None
SARA 313 -Toxic Chemicals	Listed -None
CERCLA (Comprehensive Environmental	Listed -None
Response Compensation and Liability Act)	Listed -None
CAA (Clean Air Act 1990)	Listed -None
CWA (Clean Water Act)	Listed -None
State Right to Know Lists	Listed. –Silicon Dioxide, Quartz, MA, MN, NJ, PA.

Proposition 65 (California) - This product contains the following substance(s) known to the state of California to cause cancer and/or reproductive harm; Silicon Dioxide (silica, crystalline), Titanium Dioxide (respirable).

Canada

WHMIS Classification	Class D Division 2, Subdivision B, Material Having Other Toxic Effects (Irritant).
Canada(DSL/NDSL)	Listed. - DSL.
Canada Ingredient Disclosure List (CIDL)	Listed as required.

15.2 Chemical Safety Assessment Irritant (Skin, Eye, Respiratory system), Suspect Carcinogen (Inhalation – Repeated Exposure only)

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

LEGEND

ACGIH	American Conference Of Governmental Industrial Hygienists	NA	Not Applicable, Not Available
AICS	Australian Inventory Of Chemical Substances	NIOSH	National Institute For Occupational Safety And Health
atm	Atmosphere (Pressure Unit)	NFPA	National Fire Prevention Association
BOD	Biological Oxygen Demand	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OC	Open Cup
CC	Closed Cup	OSHA	Occupational Safety And Health Administration
CDTA	Chemical Drug And Trafficking Act	Part	Partition
COC	Cleveland Open Cup	PEL	Permissible Exposure Limits
COD	Chemical Oxygen Demand	ppb	Parts Per Billion
coeff.	Coefficient	PPE	Personal Protective Equipment
CFR	Code Of Federal Regulations	ppm	Parts Per Million
CPR	Cardio-Pulmonary Resuscitation	psi	Pounds Per Square Inch
DEA	Drug Enforcement Agency	RCRA	Resource Conservation And Recovery Act
DOT	Department Of Transportation	RQ	Reportable Quantity
DSCL	Dangerous Substances Classification And	RTK	Right To Know
EEC	European Economic Community	SARA	Superfund Amendments And Reauthorization Act
FDA	Food And Drug Administration	STEL	Short-Term Exposure Limit
HMIS	Hazardous Materials Information System	SUSDP	Standard For The Uniform Scheduling Of Drugs And Poisons
IDLH	Immediate Danger To Life Or Health	TDG	Transportation Of Dangerous Goods
kg	Kilogram	TPQ	Threshold Planning Quantity
L	Liter	TQ	Threshold Quantity
LC_{50}	Median Lethal Concentration	TSCA	Toxic Substances Control Act
LD_{50}	Median Lethal Dose	TWA	Time-Weighted Average
LEL	Lower Explosive Limit	UEL	Upper Explosive Limit
mg	Milligram	WES	Workplace Exposure Standard (New Zealand)
mL	Milliliter	WHMIS	Workplace Hazardous Material Information System

References: RTECS, CAS Registry, EINECS/ESIS, *Casarett & Doull's Toxicology*, *Goldfranks's Toxicological Emergencies*, Manufacturer Information

Risk Phrases and Safety Phrases

R36/37/38: Irritating to eyes, respiratory system and

skin. R36/38: Irritating to eyes and skin.

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36: Wear suitable protective clothing.
S38: In case of insufficient ventilation, wear suitable respiratory equipment.

Hazard Statement(s) and Precautionary Statement(s)

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation
H373: May cause damage to organs through prolonged or repeated exposure:
P260: Do not breathe dust.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P304 + P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Training Advice: None

Additional Information:

- The accumulation of airborne dust particles may lead to health and safety risks in some cases. The use of good industrial practices will mitigate this risk.
- The health risks from inhalation of dust particles vary; this is due to particle concentration, exposure length, number of exposures and type of particles inhaled. Please read Sections 2,4,6,7 and 8 of the MSDS to understand these potential risks. Wear personal protective equipment and follow storage and handling procedures to maintain a safe workplace.
- In rare instances, combustible dusts may represent a potential explosion hazard when airborne. This hazard is often associated with organic dust such as foodstuffs and coal, but may also occur with mineral products. While the majority of our products would be considered non-combustible, the overall airborne environment should be considered when determining the need for mitigation from this potential hazard. Consult recognized experts when necessary in order to determine any possible hazard.

Please read the MSDS for specific information concerning these hazards, and contact us with any further questions. We appreciate your continued business.