SAFETY DATA SHEET
Diamond Cut Ski Grinder
EMULSION^2

SECTION 1: Identification

Product Name:
Diamond Cut Ski Grinder Emulsion^2
Product Code:
DC-E^2

Supplier:
Boardworks Gear Lab inc.
363, 10432-23 Ave NW
Edmonton, Alberta T6R3L8, Canada
1-780-777-3981

Emergency Telephone Number:
Poison Control Centre: Consult local telephone directory for emergency number(s).

Recommended Use of The Chemical and Restrictions on Use:
Recommended Use: This material is a proprietary emulsion blend used as a lubricant, coolant and cleaner for the purposes of tuning alpine skis and snowboards.
Restrictions on Use: Not for food or pharmaceutical use.

SECTION 2: Hazard Identification

GHS Classification:
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

GHS Label Elements:

Hazard Pictograms:



Signal Word: Warning

Hazard Statements:
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H402 - Harmful to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:
P280 - Wear protective gloves. Wear eye or face protection.
P273 - Avoid release to the environment.
P264 - Wash hands thoroughly after handling.

Response:
P391 - Collect spillage.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 - If skin irritation occurs: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention. **Storage:** Not applicable.

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

Hazards not Otherwise Classified: Defatting to the skin
This product contains complex ionic mixtures within the fluid matrix which are an intrinsic part of the product and cannot be separated from the fluid matrix. Toxicology testing has shown the ionic-mixture containing products exhibit skin and eye irritation properties that are notably attenuated when compared to the individual acid and base components.

SECTION 3: Composition/Information on Ingredients

Substances: Mixture
Corrosion inhibitors and additives in aqueous solution.

Ingredient Name	%	CAS Number
2,2',2"-nitrilotriethanol	≥10 - ≤25	102-71-6
neodecanoic acid	≤10	26896-20-8
2-aminoethanol	≤5	141-43-5
Poly(oxy-1,2-ethanediyl), .alpha.-hexyl-. omega.-hydroxy-, phosphate	≤3	67989-06-4
2-Amino-2-methylpropanol	≤3	124-68-5
undecanedioic acid	≤3	1852-04-6
2,2',2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	<1	4719-04-4
Poly quaternary ammonium chloride	<1	31512-74-0

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 or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First Aid Measures

Inhalation: If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention if symptoms occur.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention. If skin irritation or rash occurs: Get medical advice/attention.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and

remove any contact lenses. Get medical attention.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Wash out mouth with water if person is conscious. Get medical attention if adverse health effects persist or are severe.

Protection of First Aiders:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Most Important Symptoms/Effects, Acute and Delayed:

See Section 11 for more detailed information on health effects and symptoms.

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary:

Notes to Physician: Treatment should in general be symptomatic and directed to relieving any effects. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific Treatments: No specific treatment.

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media:

In case of fire, use water fog, alcohol resistant foam, dry chemical or carbon dioxide extinguisher or spray.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards Arising from the Mixture:

Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects.

Hazardous Combustion Products:

Combustion products may include the following:

- phosphorus oxides
- metal oxide/oxides
- carbon oxides (CO, CO2) (carbon monoxide, carbon dioxide)
- nitrogen oxides (NO, NO2 etc.)

Protective Equipment and Precautions for Firefighters:

No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Special Protective Equipment for Fire-Fighters:

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

For Non-Emergency Personnel:

Contact emergency personnel. 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

For Emergency Responders:

Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

Environmental Precautions:

Avoid dispersal of spilt 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods for Containment and Cleaning Up:

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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. Avoid contact of spilt material and runoff with soil and surface waterways. Avoid prolonged or repeated contact with skin. During metal working, solid particles from workpieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in a penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the workpiece or tool, such as chromium, cobalt and nickel, can contaminate the metalworking fluid and as a result may induce allergic skin reactions. Evaporation of water from soluble cutting fluids during use may lead to an increase in concentration which may result in the development of skin conditions due to irritation and defatting. It is important to monitor fluid strength on a regular basis with a refractometer and maintain it at the recommended concentration. Lubricants from other sources and other contaminants should be minimised. Swarf and other debris should be removed. To maintain optimum performance and minimise bacterial spoilage, machine tool coolant systems should be cleaned on a regular basis.

Conditions for Safe Storage:

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. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. DO NOT ADD NITRITES TO THIS FLUID.

Ensure product is stored in covered area away from direct sunlight, heat, rain and water exposure.



SECTION 8: Exposure Controls/Personal Protection

Exposure Limits:

2,2',2"-nitrilotriethanol	ACGIH TLV (United States, 1/2023). TWA: 5 mg/m³ 8 hours.
2-aminoethanol	ACGIH TLV (United States, 1/2023). TWA: 3 ppm 8 hours. TWA: 7.5 mg/m³ 8 hours. STEL: 6 ppm 15 minutes. STEL: 15 mg/m³ 15 minutes.

Whilst specific OELs for certain components may be shown in this section, other components may be present in any mist, vapour or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.
The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

Environmental Exposure Controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Personal Protective Equipment:

Hygiene Measures:

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 reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection:

Undiluted fluid: Chemical goggles.
Diluted fluid: Safety glasses with side shields.

Skin Protection:

Wear suitable gloves. Undiluted fluid: Wear chemical resistant gloves.
Recommended: nitrile gloves.

Diluted fluid: Wear protective gloves if prolonged or repeated contact is likely. Recommended: nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Use of protective clothing is good industrial practice. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

For protection against metal working fluids, respiratory protection that is classified as “resistant to oil” (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m3), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m3).

Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary.
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application.

Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

SECTION 9: Physical and Chemical Properties

Appearance: Blue. [Dark] liquid

Odor: Not available

Odor Threshold: No data available

pH: 8.85 [Conc. (% w/w): 100%]

Melting Point/Freezing Point: No data available

Initial Boiling Point and Boiling Range: >100°C (>212°F)

Flash Point: Closed cup: >100°C (>212°F) [Estimated. Water content interferes with flash point determination.]

Evaporation Rate: No data available

Flammability (solid, gas): Not applicable. Based on - Physical state

Upper/Lower Flammability or Explosive Limits: No data available

Vapor Pressure:

	Vapour Pressure at 20°C			Vapour pressure at 50°C		
Ingredient Name	**mmHg**	**kPa**	**Method**	**mm Hg**	**kPa**	**Method**
Water	17.5	2.3				
neodecanoic acid	0.015	0.002	ASTM D 2878	0.09001	0.012	ASTM D 2878
2-aminoethanol	0.4	0.053				
2-Amino-2-methylpropanol	0.33753	0.045	ASTM E 1194			
undecanedioic acid	<0.075	<0.01	OECD 104			

Vapor Density: No data available

Relative Density: >1000 kg/m³ (>1 g/cm³) at 15.6°C

Solubility: Soluble in water

Partition Coefficient (n-octanol/water): No data available

Auto-Ignition Temperature:

Ingredient Name	**°C**	**°F**	**Method**
2,2',2"-nitrilotriethanol	324	615.2	
neodecanoic acid	375	707	ASTM E 659
2-aminoethanol	410	770	
2-Amino-2-methylpropanol	438	820.4	ASTM D 2161

Decomposition Temperature: No data available

Viscosity: No data available

VOC: 108.82 g/l

Particle Characteristics: Not applicable.

SECTION 10: Stability and Reactivity

Reactivity: No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

Chemical Stability: The product is stable.

Possibility of Hazardous Reactions:
Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to Avoid: High temperatures.

Incompatible Materials: Reactive or incompatible with the following materials: oxidizing materials. Slightly reactive or incompatible with the following materials: acids.

Hazardous Decomposition Products:
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological Information

Product/ingredient name	Category	Route of Exposure	Target Organs
2-aminoethanol	3	-	Respiratory tract irritation

Information on Likely Routes of Exposure:
Oral, Dermal, Inhalation, Eyes.

Potential Acute Health Effects:

Eye contact: Causes serious eye irritation

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion: Irritating to mouth, throat and stomach.

Skin Contact: Causes skin irritation. Defatting to the skin.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

Eye contact: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

Inhalation: No specific data.

Ingestion: No specific data.

Skin Contact: Adverse symptoms may include the following:
- irritation
- redness
- dryness
- cracking

Delayed and Immediate Effects and Chronic Effects from Short and Long-Term Exposure:

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Numerical Measures of Toxicity:

Route	ATE Value
Dermal	35925.04 mg/kg
Inhalation (vapours)	359.25 mg/l

Additional information:

Alkanolamine: This product contains an alkanolamine. In all metalworking fluids containing amines, there is a potential for forming nitrosamines which are animal carcinogens. Therefore, no nitrites or related nitrosating agents should be added to such compositions.

SECTION 12: Ecological Information

Environmental effects: Water polluting material. May be harmful to the environment if released in large quantities. This material is toxic to aquatic life with long lasting effects.

Toxicity: No data available

Persistence and Degradability:

Expected to be biodegradable.

Bioaccumulate Potential:

No data available

Mobility in Soil:

Liquid. Soluble in water

Other Adverse Effects:

No data available

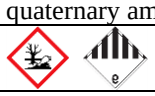
SECTION 13: Disposal Consideration

Disposal methods:

The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should always comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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 spilt material and runoff and contact with soil, waterways, drains and sewers. Diluted Fluid The spent diluted fluid comprises a relatively stable emulsion. Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques (e.g. emulsion splitting, coagulation and filtration) approved by the local authority. Spent fluid should never be disposed of down the drain. The aqueous phase should not be discharged into sewage systems unless provided for by local regulations; the non-aqueous phase should be disposed of as undiluted fluid. Note that separated aqueous solutions or effluents may contain metal salts as well as traces of oil and must be checked for conformity in these respects against consents given by the authorities before disposal. Further treatment

may be required. Note that separated aqueous solutions or effluents may contain metal salts as well as traces of oil and must be checked for conformity in these respects against consents given by the authorities before disposal. Further treatment may be required.

SECTION 14: Transport Information

	IMDG	IATA
UN Number:	UN3082	UN3082
UN Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.. Marine pollutant (Poly quaternary ammonium chloride)	Environmentally hazardous substance, liquid, n.o.s. (Poly quaternary ammonium chloride)
Transport Hazard Class(es)		
Packing Group	III	III
Environmental Hazards	Yes	Yes
Additional Information	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Emergency schedulesF-A, S-F	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

SECTION 15: Regulatory Information

Regulation according to other foreign laws

REACH Status:

For the REACH status of this product please consult your company contact, as identified in Section 1.

Canada Inventory Status: All components are active or exempted.

United States Inventory (TSCA 8b): All components are active or exempted.

California Prop. 65

This product contains a chemical known to the State of California to cause cancer.

2,2'-iminodiethanol; arsenic; 1,4-dioxane; bis(2-chloroethyl) ether

This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Cadmium (Non-pyrophoric); lead S

SECTION 16: Other Information

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. Boardworks Gear Lab inc shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. Alteration of this document is strictly prohibited.

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