SAFETY DATA SHEET

DYNA MESH

SDS Version No.: 1.0
Latest Revision: July 8, 2020
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: **Haze Remover**
General Use: **Cleaner**
Product Description: **Clear Yellow Liquid**

SUPPLIER INFORMATION
NBC Meshtec Americas
512 Kingsland Drive
Batavia, IL 60510 U.S.A
Phone: 1-800-235-5056
nbcmeshtec.com
connect@nbcmeshtec.com

24 Hour Emergency Contact:
1-800-535-5053 Infotrac United States and Canada
+1 (352) 323-3500 Infotrac International (Call Collect)

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

GHS CLASSIFICATION OF SUBSTANCE

Flammable Liquid	Not Rated Under GHS
Aspiration Toxicity	Not Rated Under GHS
Skin Corrosion/Irritation	Category 1A
Eye Corrosion/Irritation	Category 1
Carcinogenicity	Not Rated Under GHS
Specific Organ Toxicity Repeated Exposure	Not Rated Under GHS
Specific Organ Toxicity Single Exposure	Category 2 - Digestive Tract (oral exposure)
Reproductive Toxicity	Not Rated Under GHS for expected exposure routes*
Acute Toxicity	Category 4 - Oral
Germ Cell mutagenicity	Not Rated Under GHS for expected exposure routes*
Corrosive to Metals	May be Corrosive to metals; not tested
Hazardous to the aquatic environment	Category 3 - Acute

Hazard Category - means the division of criteria within each hazard class, e.g. acute toxicity includes five hazard categories and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class. "GHS Classification of Substance" means the material hazard class under that particular category and should not be taken as a comparison of hazard categories more generally. Degree of severity under GHS is "1" being the most severe and sequential numbers indicating correspondingly less severity. "Not Classified Under GHS" does not have characteristics that fall into any of the categories for that hazard class.

*See Section 11 for information concerning chronic effects of oral exposure to an ingredient in this product. NOTE: oral exposure is not an expected route of exposure particularly given the corrosivity of the product and is not being addressed in HAZARD IDENTIFICATION.

GHS LABEL ELEMENTS

DANGER

Hazard Statements
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H302 - Harmful if swallowed
H402 - Harmful to aquatic life
H290 - May be corrosive to metals

Precautionary Statements
General:
P101-If medical advice is needed, have product container or label at hand.
P103-Read label before use.
Prevention:
P260 - Do not breathe fume, mist, vapors
P264 - Wash hands, forearms and face thoroughly after handling
P280 - Wear eye protection, face protection, protective clothing, protective gloves
Response:
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep 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.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a doctor, a POISON CENTER
P363 - Wash contaminated clothing before reuse.
Storage/Disposal:
P403+235+404-Store in well-ventilated place. Keep cool. Store in closed container.
P501-Dispose of contents/container in accordance with local/regional/federal regulations.

UN GHS According to the Globally Harmonized Standard for Classification and Labeling (GHS), this product is considered hazardous based on its corrosivity under expected routes of exposure.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	wt%	CAS Registry #
Propylene Glycol	5 - 10%	57-55-6
Dipropylene Glycol Butyl Ether	5 - 10%	29911-28-2
Potassium Hydroxide	4 - 30%	1310-58-3
Tetrahydrofurfuryl Alcohol	25 - 32%	97-99-4
Alcohols, C_{12}-C_{14} secondary, ethoxylated	5 - 10%	84133-50-6
Polyethylene glycol	<1%	25322-68-3
Water	balance	

4. FIRST AID MEASURES

INHALATION:
Remove to fresh air and keep at rest in a comfortable position. Get medical attention if symptoms persist after moving to fresh air. Give oxygen if available, symptoms persist, and medical attention is not immediate.

EYE CONTACT:
Remove contact lens (if present). Rinse eyes immediately with plenty of clean water for at least 15 minutes. If necessary, gently hold the eyelid open during the flush. Seek medical attention following initial eye washing. Product is caustic and irreversible eye damage can occur if material is not successfully removed from the eyes.

SKIN CONTACT:
Immediately wash skin with mild soap solution to remove material from skin. Remove affected clothing and launder prior to re-use. If skin damage occurs other than redness, seek medical attention and provide this SDS to attending medical personnel.

INGESTION:
Ingestion is not a likely route of exposure based on commercial product use. If ingestion occurs, seek immediate medical attention. Do not induce vomiting or give anything but water by mouth without being directed to do so by POISON CONTROL or attending medical personnel.

5. FIRE FIGHTING MEASURES

Flashpoint and Method:	Not Applicable
Flammable Limits:	Unknown
Autoignition Temperature:	Unknown

GENERAL HAZARD:
Product contains water but also organic components that could fuel an existing fire creating noxious gases.

FIRE FIGHTING INSTRUCTIONS:
Water fog or fine spray; dry chemical fire extinguishers; carbon dioxide fire extinguishers; foam; alcohol resistant foams (ATC type). Use water fog or fine spray for cooling exposed containers to control heating.

FIRE FIGHTING EQUIPMENT:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

FURTHER INFORMATION:
During a fire, smoke may contain the original material in addition to combustion products which might be more irritating.

HAZARDOUS COMBUSTION PRODUCTS:
Carbon monoxide, carbon dioxide, and organics such as aldehydes depending on the heat of the fire.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL RESPONSE:
Absorb small spills with inert material such as sand or earth. Containerize waste material. Dike large spills to contain the area of the spill. Use clean up procedures that minimize contamination to earth or water bodies.

WATER SPILL:
Material is miscible with water and is expected to mix immediately with the water body. Collection will be difficult but restrict transfer to the localized spill area in the case of a large spill (many gallons) by diking or other means as this product is aquatically toxic.

RECOMMENDED DISPOSAL:
Disposal options may be dictated by other materials mixed with this material. Dispose of in accordance with local, state, and federal regulations using methods which consider recycling/reclamation.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient **STORAGE PRESSURE:** Atmospheric

GENERAL:
Keep the container tightly closed. Store in a dry, cool, and well-ventilated place away from incompatible materials such as oxidizing agents and acids. Preferable storage is in a location designed for liquids with secondary spill containment. Remaining residue in empty containers may present a fire hazard. Avoid breathing mist or vapor.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200 and other agencies)

	EXPOSURE LIMITS 8 hrs TWA (ppm)				
Component	OSHA PEL	ACGIH TLV	NIOSH REL	AIHA WEEL	Other
Propylene Glycol	None Established	None Established	None Established	10 mg/m^3	
Dipropylene Glycol Butyl Ether	None Established	None Established	0.05 mg/m^3*	None Established	
Potassium Hydroxide	None Established	2 mg/m^3 Ceiling	2 mg/m^3 Ceiling	None Established	
Tetrahydrofurfuryl Alcohol	None Established	None Established	None Established	0.5 ppm	
Alcohols, C_{12}-C_{14} secondary, ethoxylated	None Established	None Established	None Established	None Established	
Polyethylene glycol	None Established	None Established	None Established	10 mg/m3	

*- Draft interim REL 2010

ENGINEERING CONTROLS:
Provide adequate general and local exhaust ventilation to maintain exposure below established exposure limits. Provide eyewash stations and safety showers in locations available to material users. Provide hand washing facilities for routine use by personnel using the material.

PERSONAL PROTECTION:
Splash goggles and apron should be worn when pouring this material to avoid contact with the liquid. Hand protection is recommended when there is possible direct contact with the liquid. Glove choice should be appropriate for the chemical blend and the specific activity being performed. NOTE: nitrile gloves are a general purpose glove available in a wide variety of thicknesses and protect against most chemicals. Respiratory protection should be appropriate for caustic and solvent exposure and utilized if ventilation cannot be established to adequately maintain exposure within exposure limits such as might occur when cleaning up spills.

EXPOSURE EVALUATION:
Exposures depend on activities being performed and the ventilation in the area. Most of the solvents in the mixture are not sufficiently volatile to create significant airborne exposure unless material is aerosolized in some manner. Personal exposure monitoring can be performed by the employer to determine his/her employee exposures to the product during routine use at the facility. It is beyond the responsibility of the product supplier to estimate/determine airborne exposure in a user's facility.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure:	No Data Available	**Vapor Density:**	Heavier than air
Specific Gravity:	1.173± 0.003 @ 20°C	**Evaporation Rate:**	No Data Available
Solubility in Water:	Soluble	**Freezing Point:**	No Data Available
		Odor:	Mild
pH:	12.4-12.9 (1% solution)	**Appearance:**	Clear Yellow
Boiling Point:	No Data Available	**Physical State:**	Liquid
Viscosity:	30-70 cps	**Flammable Range:**	No Data Available
Flash Point:	>93°C/200°F	**VOC content:**	567 g/l

10. STABILITY AND REACTIVITY

GENERAL:
No dangerous reactions known under normal use conditions.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:
Strong acids and strong oxidizers

HAZARDOUS DECOMPOSITION:
Carbon oxides, potassium salts, short chained organic compounds depending on temperature.

11. TOXICOLOGICAL INFORMATION

TOXICITY TO ANIMALS:

Component	Acute Test	Value	Species
Dipropylene glycol butyl ether	LD50 oral	1850 to 4600 mg/kg	Rat
Dipropylene glycol butyl ether	LC50 inhalation	>42.1 ppm (vapor, measured)	Rat
Dipropylene glycol butyl ether	LC50 inhalation	>2040 mg/m^3 (aerosol, measured)	Rat
Dipropylene glycol butyl ether	LD50 dermal	>2000 mg/kg (no deaths)	Rat
Tetrahydrofurfuryl alcohol	LD50 oral	800 - 1,600 mg/kg	Guinea Pig
Tetrahydrofurfuryl alcohol	LD50 oral	1,600 - 3,200 mg/kg	Rat
Tetrahydrofurfuryl alcohol	LD50	2,300 mg/kg	Mouse
Tetrahydrofurfuryl alcohol	Eye irritation	0.1 ml application - 24 hours after application still irritation	Rabbit
Tetrahydrofurfuryl alcohol	LD50 dermal	<5 ml/kg	Guinea Pig
Propylene glycol	LD50 oral	>5,000 mg/kg	Rat
Propylene glycol	LC50 inhalation	>20 mg/l - 4 hours	Rabbit
Propylene glycol	LD50 dermal	>2,000 mg/kg	Rabbit
Alcohols, C_{12}-C_{14} secondary, ethoxylated	LD50 oral	>3,000 mg/kg	Rat
Alcohols, C12-C14 secondary, ethoxylated	LC50 inhalation	>2.5 mg/l	Rat
Alcohols, C12-C14 secondary, ethoxylated	LD50 dermal	>2,000 mg/kg	Rabbit
Potassium hydroxide	LD50 oral	214 mg/kg	Rat

ROUTES OF ENTRY:
Some components are sufficiently volatile to create a vapor hazard but inhalation hazard is greater as an aerosol
Caustic pH combined with solvent content makes it a dermal hazard and an eye hazard. The oral route is unlikely based on use, however, consumption of a volume of the product could result in digestive disruption.

CHRONIC EFFECTS ON HUMANS:
Tetrahydrofurfuryl Alcohol (THFA): the only available study that specifically investigated the reproductive toxicity of THFA were a reproduction/developmental toxicity screening study and a range-finding developmental oral study. The European Chemicals Agency (ECHA) recommended the European Union (EU) adopt the THFA listing as Category 1B developmental

toxicant and Category 2 reproductive toxicant after a proposal for classification was made by a member country.
NOTE: This product is not being listed as either a category 2 reproductive toxicant or a category 1B developmental toxicant on this safety data sheet (SDS) due to low risk of oral exposure. There is no data available on the potential dermal or inhalation pathways for this product.
Propylene Glycol: Based on repeated exposure toxicity values, not classified. Propylene glycol is of low inherent toxicity in rats and dogs after repeated oral exposure, while cats show species-specific hematological changes in red blood cells (other tissues unremarkable). Rats exposed repeatedly to high aerosol concentrations exhibited signs consistent with irritation of the eyes and nasal mucosa but showed no evidence of systemic toxicity.
Dipropylene Glycol Butyl Ether: Propylene glycols are predominantly metabolized in the liver by two different mechanisms. Mixed function oxidase can cleave the either bond to yield propylene glycol and an alcohol, which undergoes further metabolism to carbon dioxide and water. The second mechanism involves the conjugation of the parent propylene glycol ether or its intermediate metabolite with glucuronide, sulfate, or glutathione for ultimate excretion, predominantly in the urine.
Alcohols,C_{12}-C_{14} Secondary, Ethoxylated: No chronic toxicity characteristics are associated with this group of chemicals.
Potassium Hydroxide: corrosive on acute exposure but no information available on chronic exposure.

Eyes:
Solvents, surfactants, and caustic pH will result in serious eye damage if not immediately removed from the eyes.

Skin:
Solvents, surfactants, and caustic pH will result in severe skin burns if the product remains on the skin for an extended period of time.

Ingestion:
This is not an expected route of exposure. See information under CHRONIC EFFECTS ON HUMANS under this same section for ingestion concerns.

Inhalation:
Some components will present as a vapor but inhalation exposure as an aerosol is a larger concern do to limited volatility of most components.

12. ECOLOGICAL INFORMATION

Species	Test Information	Concentration	Component
Pimephase promelas (fish)	LC50 - 96 hr OECD 203	3.5-4.9 mg/l	Alcohols, C_{12}-C_{14} secondary, ethoxylated
Daphnia magna (water flea)	EC50 - 48 hr OECD 203	3.1 mg/l	Alcohols, C_{12}-C_{14} secondary, ethoxylated
Pimephase promelas (fish)	LC50 - 96 hr static	179 mg/l	Potassium hydroxide
Daphnia magna (water flea)	EC50 - 48 hr static	60 mg/l	Potassium hydroxide
Rasbora heteromorpha	LC50	3,600 mg/l	Tetrahydrofurfuryl alcohol

Alcohols, C_{12}-C_{14} secondary, ethoxylated and Potassium Hydroxide are moderately toxic to aquatic organisms.

PRODUCTS OF BIODEGRADATION:
Components readily biodegrade and products of biodegradation are less toxic than the chemicals, themselves.

13. DISPOSAL CONSIDERATIONS

Dispose of any waste in compliance with local, state, and federal regulations. Determine EPA RCRA waste categorization at the time of disposal as mixing with other materials may change its categorization. Containers may contain residue that needs to be addressed at time of disposal. Recycling containers needs to address any remaining residues.

14. TRANSPORT INFORMATION

The following proper shipping name, hazard class and packing group are in accordance to 49 CFR Department of Transportation (U.S. DOT) regulatory requirements from 172.101 Hazardous Materials Table

49 CFR Shipping Information	Dynamesh Haze Remover
Symbols	"G" - identifies proper shipping names for which one or more technical names of the hazardous material must be entered in parantheses, in association with the basic description. See 172.203(k).
UN Number	UN3266
Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s. (Contains: Potassium Hydroxide)
Hazard Class	8
Packing Group	III
Label Codes	8
Special Provisions (172.102)	IB3,T7,TP1,TP28
Packaging - Exceptions	173.154
Packaging - Nonbulk	173.203
Packaging - bulk	173.241
Quantity Limitations - Passenger aircraft/rail	5L
Quantity Limitations - Cargo aircraft only	60L
Vessel stowage - Location	A-means the material may be stowed on deck or under deck on a cargo vessel and on a passenger vessel
Vessel stowage - Other	40 - stow clear of living quarters

INTERNATIONAL AIR TRADE ASSOCIATION (IATA)

IATA 58th Edition Information	Dynamesh Haze Remover
UN Number	UN3266
Proper Shipping Name Description	Corrosive liquid, basic, inorganic, n.o.s. (Contains: Potassium Hydroxide)
Class or Division	8
Hazard Label(s)	Corrosive
Packing Group	III
EQ - 2.6 Dangerous Goods in Excepted Quantities	E1
Passenger Aircraft - Limited Quantity Packing Instructions	Y841 - substances must be compatible with their packagings as required by 5.0.2.6; metal packagings must be corrosion resistant or with protection agains corrosion; closures must meet the requirements of 5.0.2.7. inner packaging construction/net quantity per inner packaing - glass - 0.5L, metal - 0.5L; plastic - 0.5L; total net quantity per package - 1L
Passenger Aircraft - Limited Quantity Max net Qty/Pkg	1 L

Passenger Aircraft - Packing Instructions	852 - substances must be compatible with their packagings as required by 5.0.2.6; metal packagings must be corrosion resistant or with protection against corrosion; closures must meet the requirements of 5.0.2.7; packagings must meet Packing Group II performance standards. inner packaging construction/net quantity per inner packaging - glass - 2.5 L; metal - 5L; Plastic - 2.5 L. total net quantity per package - 5L.
Passenger Aircraft - Quantity Max Net Qty/Pkging	5 L
Cargo Aircraft only - Packing Instructions	856 - substances must be compatible with their packagings as required by 5.0.2.6; metal packagings must be corrosion resistant or with protection against corrosion; closures must meet the requirements of 5.0.2.7; packagings must meet Packing Group II performance standards. construction/net quantity per inner packaging - glass - 5L; metal - 10 L; plastic - 5 L; total per package - 60L
Cargo Aircraft only - Max Net Qty/Pkging	60 L
Special Provisions 4.4	None
ERG Code	*8L*

INTERNATIONAL MARITIME DANGEROUS GOODS CODE (IMDG CODE)

IMDG 2016 EDITION	Dynamesh Haze Remover
UN Number	UN3266
Proper Shipping Name Description	Corrosive liquid, basic, inorganic, n.o.s. (Contains: Potassium Hydroxide)
Class or Division	8
Subsidiary Risks	None
Packing Group	III
Special Provisions	223, 274
Limited Quantities	5 L
Excepted Quantities	E1
Packing Instructions	P001, LP01
Packing Provisions	None
IBC Instructions 4.1.4	IBC03
IBC Provisions 4.1.4	None
Portable tanks and bulk containers - tank instructions	T7
Portable tanks and bulk containers - provisions	TP1, TP28
EmS	F-A, S-B
Stowage and Handling	Category A SW2 - on deck or under deck for cargo ships or passenger ships carrying passengers limited to 25 or 1 per 3 m of overall length. SW2 - away from living quarters.
Segregation	SG35 - stow separated from acids.
Properties and observations	Reacts violently with acids. Causes burns to the skin, eyes and mucous membranes.

15. REGULATORY INFORMATION

Chemical Inventory Status
Ingredients listed on: TSCA, DSL, Japan, and EC inventories.

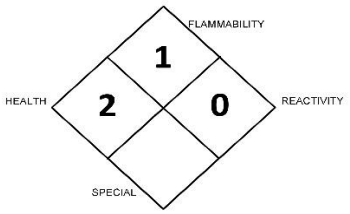
SARA Section 302 - Emergency Planning Notification - Potassium hydroxide
SARA Section 304 - Emergency Release Notification - None
SARA 311/312 - Hazard categories for SARA Section 311/312 Reporting - Immediate (acute)
Delayed (chronic)

CERCLA - Hazardous Substance - Potassium Hydroxide
RCRA Hazardous Waste Classification - None

California Proposition 65:
No components known to the state of California to cause cancer and/or reproductive harm.

16. OTHER INFORMATION

UNITED STATES NATIONAL FIRE PROTECTION ASSOCIATION (U.S. NFPA)
NFPA 704 "fire diamond" is used by emergency personnel to quickly identify the risks posed by the material during response to a fire or a spill or other unusual event.



Dynamesh Haze Remover

NFPA rating explanation as applied to Dynamesh Haze Remover
FLAMMABILITY 1 - Materials that require considerable preheating, under all ambient temperature before ignition can occur. Flash point at or above
HEALTH 2 - Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.
REACTIVITY 0 - Normally stable, even under fire exposure conditions, and is not reactive with water.
SPECIAL - contains special symbols applicable to the material. In this case there are no applicable special conditions.

Dynamesh Haze Remover	
HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	H

HEALTH -	2 - Temporary or minor injury may occur.
FLAMMABILITY-	1 - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F/93 C
REACTIVITY-	0-Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Nonexplosives.
PERSONAL PROTECTION-	Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.

CREATION/REVISION SUMMARY:
Created on: July 8, 2020