SAFETY DATA SHEET

Section 1: Product and Company Identification

Product Name	***DAVINCI***		
Product Number	A-010		
Prepared Date	June. 12, 2015 Updated : July. 17, 2015		
Manufacturer's Name	Miyaki Co.Ltd.		
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Section 2: Hazardous Identification

GHS CLASSIFICATION:

Health Hazards:

Acute Toxicity Oral:	Category 5
Skin corrosion/irritation:	Category 1
Serious eye damage/eye irritation:	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity-single exposure:	Category 1(respiratory system)
Aspiration hazard:	Category 2

Environmental Hazards:

Aquatic life environmental hazardous property: Acute: Category 3

Hazard Pictograms:

Signal word: DANGER

Hazard statements:

H303: be harmful if swallowed (oral)
H305: M May ay be harmful if swallowed and enters airways
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H361: Suspected of damaging fertility or the unborn child
H370: Causes damage to organs (respiratory system)
H402: Harmful to aquatic life

Precautionary statements:

Prevention:

P201: Obtain special instructions before use
P202: Do not handle until all safety precautions have been read and understood
P234: Keep only in original container
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash hands thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area
P272: Contaminated work clothing should not be allowed out of the workplace
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
Prevent exposure using personal protective equipments and ventilators

Responses:

P301+P330+P331+P310: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353+P310: 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.

P304+P340+P310: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338+P310: 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.

P308+P311: IF exposed or concerned: Call a POISON CENTER or doctor/physician.

P312: Call a POISON CENTER or doctor/ physician if you feel unwell.

P333+P313: If skin irritation or a rash occurs: Get medical advice/attention.

P363: Wash contaminated clothing before reuse.

Storage:

P403+P233: Store in a well ventilated place. Keep container tightly close.

P405: Store locked up.

Disposal:

P501: Dispose of contents/container in according with local/regional/national/international regulation.

Section 3: Composition / Information on Ingredients

Chemical characterization : Mixture

General Name : Silicon remover

Use: For professional-use only

Ingredient and Content

CAS Number	*Component Name*	*Wt%*
1310-58-3	POTASSIUM HYDROXIDE	<5
1310-73-2	SODIUM HYDROXIDE	<5
67-63-0	ISOPROPYL ALCOHOL	<10
Confidential	SURFACE-ACTIVE AGENT	Confidential
Confidential	THICKENER	Confidential
Confidential	ADDITIVE AGENT	Confidential
7732-18-5	WATER	Remainder

The U.N. classification and the U.N. number : Class-8: 3266 (CORROSIVE LIQUID, BASIS, INORGANIC, N.O.S.)

Section 4: First-Aid Measure

In Case of Inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

In Case of Skin Contact : Immediately wash skin with plenty of water while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention immediately.
If rash or irritation develops, consult a physician.

In Case of Eye Contact : Flush with water immediately for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In Case of Ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Section 5: Fire Fighting Measure

Fire: There is a fear that gas having irritant property,corrosivity and toxicity occur by fire.

Explosion: There is a fear that a container is explosive by heating.

Fire Extinguishing Media: If involved in a fire, use water spray.

Special Information: 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. Stay away from ends of tanks. Cool tanks with water spray until well after fire is out. Put no water in the container.

Fire-extinguishing agent : Powder, carbon dioxide, dry chemical, foam or water spray

Fire Fighting Measures : Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

Section 6: Accidental Release Measure

・The circumference is surrounded with a rope etc. And entry of people is forbidden.

・In an indoor case, it ventilates enough.

・The thing used as the neighboring source of ignition is removed promptly.

・In the case of work, a suitable protection implement (rubber or a vinyl glove, a protection mask, an apron, goggles) is worn.

・When influence may be done to a citizen, a related government office and a supplier are contacted.

・When the leakage is little, after making a towel etc. absorb, in being abundant in a container, in it, the surroundings are enclosed with sand, the ground, etc., and it prevents an outflow in it, and collects as much as possible in it.

・It flows into a sewer, river ocean space, etc. and bends and needs - it is careful

・The rule of an area is followed when it reveals underwater.

Note:See section 8 for Personal Protective Equipment for Spills.

Section 7: Handling and Storage

Handling: Do not get in eyes, on skin, or on clothing. Keep container tightly closed when not in use. Wear personal protection equipment. Do not breathe vapors. Wash thoroughly after handling. If pouring or transferring materials, ground all containers and tools. Do not weld, cut or drill on full or empty containers. Use only in accordance with Product Data Sheet. Avoid breathing vapors or spray mist.

Storage: Store in a well ventilated place. Keep container tightly close. Store locked up. When keeping, separate from contamination dangerous goods matter, a food and feed. Keep only in original container.

Section 8: Exposure Controls / Personal Protection

Component Name	*Standard control concentration*	*Acceptable concentration*	
		Japan Society for Occupational Health (2011)	*ACGIH (2012)*
POTASSIUM HYDROXIDE	—	2mg/m^3 (Maximum allowable concentration)	TLV-Ceiling 2mg/m^3
SODIUM HYDROXIDE	—	2mg/m^3 (Maximum allowable concentration)	TLV-STEL 2mg/m^3
ISOPROPYL ALCOHOL	200ppm	400ppm (980mg/m^3)	TLV-TWA 200ppm STEL 400ppm

Engineering Controls: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

Respiratory Protection: Use only with ventilation to keep levels below exposure guidelines listed in Section 2.User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure, or not able to monitor, use MSHA／NISOH approved supplied air respirator. Follow all current OSHA requirements for respirator use.

Skin Protection: Recommend impervious gloves and clothing to avoid skin contact. If material penetrates to skin, change gloves and clothing.

Eye Protection: Recommend safety glasses with side shields or chemical goggles to avoid eye contact.

Other protective equipment: Eye wash and safety showers should be readily available.

Hygienic Practices: Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Leather shoes can absorb and allow hazardous materials to pass through.

Conditions To Avoid: Heat, sparks and open flames.

Incompatibility: Keep away from strong oxidizing agents, heat and direct rays.

Sanitary Measure: Wash hands thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.

Section 9: Physical and Chemical Properties

Appearance/state : Clear transparent～Semitransparent liquid.

Odor : A characteristic smell.

Specific gravity (density) : 1.0– 1.2

Solubility : Water solubility. Miscible with water.

pH: 13.5±0.5

Inflammability: non-flammable liquid

Section 10: Stability and Reactivity

Stability : Carbonic acid gas in the air is absorbed, and sodium carbonate decahydrate and salt of tartar are generated.

Reactivity : An aqueous solution is strong alkali and reacts to an acid intensely, and much metal is corroded. Flammable hydrogen gas is generated by contact with metal. It reacts to many compounds intensely. Fire and explosive danger are brought. Some kinds of plastics, rubber and film-forming agent are infringed.
It reacts to a phosphorus compound and generates poisonous flammable gas (hydrogen phosphide).

Conditions to Avoid : Hotness, Air, and Contacting with contamination dangerous goods matter.

Materials to Avoid : Acid and metal.

Hazardous Decomposition Products: An oxidation potassium, oxidation sodium and hydrogen are generated by strong heat.

Section 11: Toxicological Information

Acute Toxicity

Oral: Category 5

POTASSIUM HYDROXIDE	ORAL	LD_{50} 284mg/kg (rat)
SODIUM HYDROXIDE	ORAL	LD_{50} 325mg/kg (rat)
ISOPROPYL ALCOHOL	ORAL	LD_{50} 5280mg/kg (rat)

Skin corrosion / irritation
Since it was strong base, it was considered as the category 1 (Causes severe skin burns and eye damage).

Serious eye damage / eye irritation
Since it was strong base, it was considered as the category 1 (Causes serious eye damage).

Respiratory sensitization
No data available

Skin sensitization
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
No data available

Reproductive toxicity
Since 0.1% or more of cutoff value of ISOPROPYL ALCOHOL classified into the category 2 are contained, it was considered as the category 2.

Specific target organ toxicity - single exposure
Since 1% or more of cutoff value of POTASSIUM HYDROXIDE and SODIUM HYDROXIDE classified into the category 1 are contained, it was considered as the category 1 (respiratory system).

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
POTASSIUM HYDROXIDE and SODIUM HYDROXIDE classified into category 1, it's less than 10 % of total containing, so it's made the category 2.

Section 12: Ecological Information

Aquatic life environmental hazardous property
Acute : Category 3 Crustacean(*Ceriodaphnia*) LC_{50} 40.4mg／L／48H (SODIUM HYDROXIDE)
Chronic : No data available

Persistence and degradability : No data available

Bioaccumulative potential : No data available

Section 13: Disposal Consideration

Waste Disposal : Dispose of in accordance with Waste Disposal and Public Cleaning Law and local regulations. Responsibility for proper waste disposal is with the owner of the waste.

Note : This product is highly flammable. Don't use fire to cut empty container after use.

Section 14: Transport Information

International Regulations :	
Sea Transport(IMDG)	Abide by Regulation of IMO
UN Number :	3266
Proper Shipping Name :	CORROSIVE LIQUID, BASIS, INORGANIC, N.O.S.
Class :	8
Packing Group :	Ⅱ
Marine Pollutant :	Not Applicable
Air Transport(IATA)	Abide by Regulation of ICAO/IATA
UN Number :	3266
Proper Shipping Name :	CORROSIVE LIQUID, BASIS, INORGANIC, N.O.S.
Class :	8
Packing Group :	Ⅱ

Avoid fire, heat, and direct rays.

When you convey, avoid direct rays. And load so that there is no damage, corrode and leak of a container. Stack not to collapse.

Don't overlay on other dangerous objects or dangerous objects which burn easily.

Don't overlay a heavy load.

Section 15: Regulatory Information (Japanese law)

Industrial Safety and health Law	
Notification Substance :	POTASSIUM HYDROXIDE, SODIUM HYDROXIDE, ISOPROPYL ALCOHOL
Indication Substance :	ISOPROPYL ALCOHOL
Corrosive Liquid :	POTASSIUM HYDROXIDE, SODIUM HYDROXIDE
Hazardous Material :	ISOPROPYL ALCOHOL
Type 2 Organic Solvent :	ISOPROPYL ALCOHOL
Fire Service Law :	ISOPROPYL ALCOHOL
Pollutant Release and Transfer Register :	Not applicable

Poisonous and Deleterious Substance Control Law :	Not applicable
Law for Safety of Vessels :	Corrosive substance POTASSIUM HYDROXIDE, SODIUM HYDROXIDE
Aviation Law :	Corrosive substance POTASSIUM HYDROXIDE, SODIUM HYDROXIDE
Port Regulation Law :	Corrosive substance POTASSIUM HYDROXIDE, SODIUM HYDROXIDE

Section 16: Other Information

・The information contained herein is based on data available as of the date of preparation of this SDS and which we believe to be reliable. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material.

・It is the responsibility of the user to comply with all applicable laws and regulations.

・This product has been developed and manufactured for general industrial use.

・If you have questions about contents, please contact with Quality Assurance Office.