Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name/Identifier : Multi-Purpose Cleaner M97(A)
Product Code : DR8211(A)
Product Use : Highly effective in breaking up grimes, dirt, airborne impurities and scale deposits

Company Information : Vance Chemicals Pte Ltd
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msds@mr-mckenic.com

Emergency Contact : **+65 9299 8024**

SECTION 2 HAZARDS INDENTIFICATION

GHS CLASSIFICATION

Health		Environmental	Physical
Acute Oral Toxicity	Category 4	Not Classified	Not Classified
Eye Damage/Irritation	Category 1		
Skin Corrosion	Category 1		

GHS LABEL:

Danger

Hazard Statements:

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

Prevention:

P260	Do not breathe dust/fume/gas/mist/vapour/spray.
P264	Wash thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: 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.

P310	Immediately call a POISON CENTRE or doctor/physician.
P321	Specific treatment (see supplemental first aid instructions on this label).
P330	Rinse mouth.
P361	Remove/Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

SECTION 3 COMPOSITIONS / INFORMATION ON INGREDIENTS

Chemical Identity	CAS #	EINECS #	R Phrase	S Phrase	Weight %
Sodium Hydroxide	1310-73-2	215-185-5	R35	-	<10
Potassium Hydroxide	1310-58-3	215-181-3	-	-	<6
Non-hazardous Materials	Mixture	-	-	-	>70

SECTION 4 FIRST AID MEASURES

Eye Contact
Immediately flush eyes with large amounts of water for at least 15 minutes while holding the eyelids open. If redness, swelling, pain and blister occur, transport to the nearest medical facility for additional treatment.

Skin Contact
If redness, swelling, pain and blister occur, transport to the nearest medical facility for additional treatment.

Inhalation
Remove the victim into fresh air. Seek for medical treatment in the event of symptoms.

Ingestion
Seek medical advice immediately. Rinse mouth with water and do not induce vomiting.

SECTION 5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing agents appropriate for surrounding fire.

Unsuitable Extinguishing Media
No restrictions

Specific Hazards Arising from the Chemical
Hazardous decomposition products. Burning produces irritant fumes.

Protection for Fire-fighters
Evacuate personnel to safe areas. Intervention only by capable personnel who are trained and aware of the hazards of the product. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.Clean contaminated surface thoroughly.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment
Refer to protective measures listed in sections 7 and 8. Prevent further leakage or spillage if safe to do so. Keep away from incompatible products. Isolate the area.

Environmental Precautions
Prevent discharges into the environment (sewers, rivers, soils). Immediately notify the appropriate authorities in case of discharge.

Method for Cleaning Up & Containment
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Call for assistance for disposal.

Emergency Procedures
Shut off leaks, if possible without personal risks. Prevent from spreading or entering drains, ditches or rivers by using sand, earth or other appropriate barriers. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas indicator.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling
Do not eat, drink or smoke in work area. Avoid contact with eye, skin and clothing.
After handling, always wash hands thoroughly with soap and water. Use only with adequate ventilation. Avoid breathing vapors or spray mists. Avoid large quantities of material into live electrical motors and other such equipments.

Conditions for Safe Storage
Keep container dry. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place.

Storage Temperature : Ambient
Storage/Transport Pressure : Atmospheric

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Sodium Hydroxide 50%	1.2ppm	Not Established	1.2ppm	Not Established

Engineering Controls
Ensure adequate ventilation. Provide appropriate exhaust ventilation at machinery. Refer to protective measures listed in sections 7 and 8. Apply technical measures to comply with the occupational exposure limits.

Personal Protective Equipment (PPE)
Eye Protection
Eye protection is not required under normal conditions of use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.

Skin Protection
No skin protection is required for single, short duration exposures. For prolonged or repeated exposures, use impervious clothing (boots, gloves, aprons, etc) over parts of the body subjected to exposure. Launder soiled clothes. Proper dispose of contaminated leather articles including shoes, which cannot be decontaminated. Use rubber gloves if necessary.

Respiratory Protection
In the case of hazardous fumes, wear self contained breathing apparatus. Self-contained breathing apparatus in medium confinement/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.

Thermal Hazards
NA

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Clear light yellow
Odour	: Characteristic
Odour Threshold	: NA
PH	: 12-14
Melting Point/ Freezing Point (°C)	: Not determined
Initial Boiling Point and Range (°C)	: Not determined
Flash Point (°C) [ISO 3679, Closed Cup Testing]	: No flash point detected (From ambient temperature to 93°C)
Evaporation Rate	: Not determined
Flammability (Solid, Gas)	: Not applicable
Upper/Lower Flammability (Explosive) Limits	: Not determined
Vapour Pressure	: Not determined
Vapour Density	: Not determined
Relative Density	: 1.16 ± 0.03
Solubility in Water	: Soluble
Partition Coefficient (N-Octanol/Water)	: Not determined
Auto-ignition Temperature (°C)	: Not determined
Decomposition Temperature	: Not determined
Viscosity (mPa s)	: Not determined

SECTION 10 STABILITY AND REACTIVITY

Reactivity/Incompatible materials
Strong oxidizers. Reducing agents, metals, acids, alkalis.

Chemical Stability
Stable at normal conditions of use.

Possibility of Hazardous Reactions
Not determined

Hazardous Decomposition Products
Not applicable.

Conditions to Avoid
Not applicable.

Materials to Avoid
Strong oxidizers. reducing agents, metals, acids, alkalis.

SECTION 11 TOXICOLOGICAL INFORMATION

Ingredient Name: Potassium Hydroxide 90%

Acute Health Effects
Swallowed
Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Ingestion of alkaline corrosives may produce burns around the mouth, ulcerations and swellings of the mucous membranes, profuse saliva production, with an inability to speak or swallow. Both the oesophagus and stomach may experience burning pain; vomiting and diarrhea may follow. Epiglottal swelling may result in respiratory distress and asphyxia; shock can occur, Narrowing of the oesophagus, stomach or stomach valve may occur immediately or after a long delay (weeks to years). Severe exposure can perforate the oesophagus or stomach leading to infections of the chest or abdominal cavity, with low chest pain, abdominal stiffness and fever. All of the above can cause death.
LD50: 273mg/kg, rat.
Eye
If applied to the eyes, this material causes severe eye damage. Direct eye contact with corrosive bases can cause pain and burns. There may be swelling, epithelium destruction, clouding of the cornea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness.
Skin
The material can produce severe chemical burns following direct contact with the skin. Potassium hydroxide burns are not immediately painful, onset of pain may be delayed minutes or hours; thus care should be taken to avoid contamination of gloves and boots. Skin contact with alkaline corrosive may produce severe pain and burns; brownish stains may develop. The corroded area may be soft, gelatinous and necrotic; tissue destruction may be deep. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lessions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Inhaled
The material can cause respiratory irritation in some people. The body's response to such irritation can cause further lung damage. Inhaling corrosive bases may irritate the respiratory tract. Symptoms include cough, choking, pain and damage to the mucous membrane. In severe cases, lung swelling may develop, sometimes after a delay of hours to days. There may be low blood pressure, a weak and rapid pulse, and crackling sounds. Inhalation of potassium hydroxide dust may be fatal due to spasm, inflammation and oedema of the larynx and bronchi, chemical pneumonitis and severe pulmonary oedema. Symptoms of overexposure include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Persons with impaired respiratory function, airway disease and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained ,proper screening should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.

Chronic Health Effects
Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Chronic exposures may result in dermatitis and/or conjunctivitis. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness' lung shadow show on X-ray.

Ingredient Name: Sodium Hydroxide 50%

Acute Health Effects
Swallowed
The material can produce severe chemical burns within the oral cavity and gastrointestinal tract following ingestion. Ingestion of alkaline corrosives may produce burns around the mouth, ulcerations and swellings of the mucous membranes, profuse saliva production, with an inability to speak or swallow. Both the oesophagus and stomach may experience burning pain; vomiting and diarrhoea may follow. Epiglottal swelling may result in respiratory distress and asphyxia; shock can occur. Narrowing of the oesophagus, stomach or stomach valve may occur immediately or after a long delay (weeks to years). Severe exposure can perforate the oesophagus or stomach leading to infections of the chest or abdominal cavity, with low chest pain, abdominal stiffness and fever. All of the above can cause death. Accidental ingestion of the material may be damaging to the health of the individual.
LD50: 400mg/kg, rabbit.
Eye
The material can produce severe chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage. Direct eye contact with corrosive bases can cause pain and burns. There may be swelling, epithelium destruction, clouding of the cornea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness.
Skin
The material can produce severe chemical burns following direct contact with the skin. Skin contact with alkaline corrosives may produce severe pain and burns; brownish stains may develop. The corroded area may be soft, gelatinous and necrotic; tissue destruction may be deep. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Inhaled
The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhaling corrosive bases may irritate the respiratory tract. Symptoms include cough, choking, pain and damage to the mucous membrane. In severe cases, lung swelling may develop, sometimes after a delay of hours to days. There may be low blood pressure, a weak and rapid pulse, and crackling sounds.

Chronic Health Effects
Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Chronic exposures may result in dermatitis and/or conjunctivitis. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.
Substance accumulation, in the human body, may occur and may cause some concern following repeated or long term occupational exposure.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity
No data available

Persistence/Degradability
Not expected to bio-accumulate significantly

Bio accumulative Potential
Not expected to bio-accumulate significantly

SECTION 13 DISPOSAL CONSIDERATIONS

Local Legislation
Dispose in compliance with local/federal and national regulations. It is recommended to contact the producer for recycling/recovery. Or send the product to an authorized hazardous waste incinerator.

Container Disposal
To avoid treatments, as far as possible, use dedicated containers. If not, rinse the empty containers with a low volatility hydrocarbon and treat the effluent in the same way as waste. Containers that cannot be cleaned must be treated as waste.

SECTION 14 TRANSPORT INFORMATION

Land (ADR)

UN Number	: 1760
UN Class	: 8
Subsidiary Risk	: NA
Packing Group	: II
Proper Shipping Name	: Corrosive Liquid, N.O.S (sodium hydroxide)
HIN	: NA

Sea (IMDG)

UN Number	: 1760
UN Class	: 8
Subsidiary Risk	: NA
Packing Group	: II
Proper Shipping Name	: Corrosive Liquid, N.O.S (sodium hydroxide)
HIN	: NA

Sea (Annex II of MARPOL 73/78 and the IBC Code)

Pollution Category	: NA
Ship Type	: 3
Product Name	: Corrosive Liquid, N.O.S (sodium hydroxide)

Air (IATA)

UN Number	: 1760
UN Class	: 8
Subsidiary Risk	: NA
Packing Group	: II
Proper Shipping Name	: Corrosive Liquid, N.O.S (sodium hydroxide)

Special Precautions
Before transportation, make sure the containers are tightly sealed and that there are no liquid or gas leaks.

When transporting containers, be sure that they are tightly fastened. An appropriate buffer material should be placed between them to prevent them from bumping each other and being damaged during transport.

SECTION 15 REGULATORY INFORMATION

EU Information

Risk Phrase:
R35 Causes severe burns

Safety Phrase:
S24/25 Avoid contact with skin and eyes

USA Information

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA)

Ingredient	CAS #	CERCLA RQ	RCRA Code
Potassium Hydroxide	1310-58-3	1000	-
Sodium Hydroxide	1310-73-2	1000	-

Superfund Amendments and Reauthorization Act (SARA) Title III Information:
SARA Section 311/312 (40 CFR 370) Hazard Categories:

Ingredient	Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactivity Hazard
Potassium Hydroxide	Yes	Yes	No	No	Yes
Sodium Hydroxide	Yes	No	No	No	No

This product does not contain any toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372).

Canada Information

WHMIS Classification:
E Corrosive material

SECTION 16 OTHER INFORMATION

Department issuing date sheet : Vance Chemicals Quality Control and Laboratory
Original Issue date : 27 June 2013
Revision no : 02
Revision date : 12/6/2015

This product is intended for use by skilled individuals at their own risk. The information, data and recommendations set forth herein are presented in good faith and are believed to be correct as of the date hereof. The company / manufacturer makes no representations as to the completeness or accuracy of the Information and disclaims responsibility for any reliance thereon. The information is provided upon the condition that the persons receiving will make their own determination as to its suitability for their purposes prior to use. Any use of the Information must be determined by the user to be in accordance with applicable Federal, state and local laws and regulations. In no event will the company / manufacturer be responsible for damages of any nature whatsoever resulting from the use or reliance upon the Information.
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