Material Safety Data Sheet(MSDS)

This Material Safety Data Sheet(MSDS) has been provided

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1. Product Name : TECTYL RC 503A

2. Advisable use and Restriction
   - ○ Advisable use : Rust Cleaner
   - ○ Restriction :
     - Do not use product for any other non-recommended purposes

3. Manufacturer information
   - ○ Manufacture information : Tectyl Oil & Chemicals Vina Lot C_2D_CN, My Phuoc 3 Park, Thoi Hoa Ward, BenCat, Binh Duong Province (933854940)
   - ○ Company : Tectyl Oil & Chemicals Vina
   - ○ Address : Lot C_2D_CN, My Phuoc 3 Park,Thoi Hoa Ward, BenCat, Binh Duong Province
   - ○ Information service or emergency number : 933854940
   - ○ Dept. responsible for information/contact number : Tectyl Oil & Chemicals Vina R&D CENTER
     Technology & Management Team, Jeon Young Sik

2. HAZARD IDENTIFICATION

1. Hazard classification
   - CORROSIVE TO METALS Category 1
   - SKIN CORROSION/IRRITATION Category 1
   - SERIOUS EYE DAMAGE/EYE IRRITATION Category 1

2. Allocation label elements
   - ○ Symbol

   - ○ Signal word : DANGER
   - ○ Hazard statements

     H290 May be corrosive to metals.

     H314 Causes severe skin burns and eye damage.

     H318 Causes serious eye damage.

   - ○ Precautionary statements
     - Prevention

       P234 Keep only in original container.

       P260 Do not breathe dust/fume/gas/mist/vapours/spray.

       P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

- Response

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/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 CENTER or doctor/physician.

P321 Specific treatment

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

- Storage

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

- Disposal

P501 Dispose of contents/container properly

3. Other hazard information not included in hazard classification (NFPA)

※ No NFPA data of the product. thus NFPA data was described by the product component.

Chemical Name	NFPA Level		
	Health	Flamm	Reactivity
1. WATER	0	0	0
2. SODIUM HYDROXIDE	3	0	1
3. POTASSIUM HYDROXIDE	3	0	1
4. Substance1	2	1	1
5. Substance2	1	0	0

3. INGREDIENT INFORMATION

Components	Common name	CAS No.	PCT(W%)
1) WATER	WATER	7732-18-5	66-72
2) SODIUM HYDROXIDE	SODIUM HYDROXIDE	1310-73-2	1-4.9
3) POTASSIUM HYDROXIDE	POTASSIUM HYDROXIDE	1310-58-3	1-4.9
4) Substance1	-	-	17-21
5) Substance2	-	-	1-3

4. FIRST AID MEASURES

1. Following eye contact

- Get medical aid immediately.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses` if present and easy to do. Continue rinsing.

_ In case of contact with material, immediately flush eyes with running water for at least 15 minutes.

_ In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

- Seek immediate medial assistance.

2. Following skin contact

_ For hot product, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat.

- For minor skin contact, avoid spreading material on unaffected skin.

- Get medical aid immediately.

_ IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

_ In case of contact with material, immediately flush skin with running water for at least 15 minutes.

_ In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

- Launder contaminated clothing and shoes before re-use.

- Remove and isolate contaminated clothing and shoes.

- Seek immediate medial assistance.

- Wash contaminated clothing before reuse.

3. Following inhalation

- Administer oxygen if breathing is difficult.

- Give artificial respiration if victim is not breathing.

_ 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.

- Keep victim warm and quiet.

- Move to fresh air.

- Seek immediate medial assistance.

4. Following ingestion

- Get medical aid immediately.

- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

- If unconscious but breathing, never give anything by mouth.

- Seek immediate medial assistance.

5. Advice to physician

- Do not apply drugs of the adrenaline ephedrine group.

_ Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

1. Suitable (and unsuitable. extinguishing media

○ Suitable extinguishing media

- Use dry sand or earth to smother fire., Water spray., CO2., Dry chemical., Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

○ Unsuitable extinguishing media

- Direct water.

○ Large fire

- Alcohol-resistant foam., Dry chemical., Excess water., Foam., CO2., Water spray/fog.

2. Special hazards arising from the substance

○ Pyrolytic product

- During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

○ Risk of fire and explosion

- Containers may explode when heated.
- Fire may produce irritating and/or toxic gases.
- May ignited from heat, friction or contamination.
- Some may burn but none ignite readily.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.

3. Special protective equipment for firefighters

- Contact may cause burns to skin and eyes.
- Dike fire-control water for later disposal; do not scatter the material.
- Evacuate area and fight fire from a safe distance.
- Fire involving Tanks: ALWAYS stay away from tanks engulfed in fire.
- Fire involving Tanks: Cool containers with flooding quantities of water until well after fire is out.
- Fire involving Tanks: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Fire involving Tanks: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
- Fire involving Tanks: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Move containers from fire area if you can do it without risk.
- Rescuers should put on appropriate protective gear.
- Runoff may cause pollution.
- Substance may be transported hot.
- Substance may be transported in a molten form.

6. ACCIDENTAL RELEASE MEASURES

1. Health considerations and protective equipment

- Clean up spills immediately, observing precautions in Protective Equipment section.
- Cover with plastic sheet to prevent spreading.

- Do not breathe dust/fume/gas/mist/vapours/spray.
- Do not enter areas which have more than 23.5% oxygen in the atmosphere, without respirator or air supplied mask.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Do not touch or walk through spilled material.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Please note that materials and conditions to be avoided.
- Prevent dust cloud.
- Stop leak if you can do it without risk.
- Ventilate the contaminated area.

2. Environmental precautions
   - Prevent entry into waterways, sewers, basements or confined areas.
3. For cleaning up
   - Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
   - Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.
   - Absorb spillage to prevent material damage.
   - Absorb the liquid and scrub the area with detergent and water.
   - Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.
   - Large Spill: Dike far ahead of liquid spill for later disposal.
   - Small Spill: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
   - Small Spill: Flush area with flooding quantities of water.
   - With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

7. HANDLING AND STORAGE

1. Precautions for safe handling
   - Avoid any skin and eye contact when insert undiluted solution. Wash ... thoroughly after handling.
   - Caution: Dangerous fire hazard when exposed to heat, or flame, sparks.
   - Use adequate machine for prevention when package handling.
   - Wear an appropriate Personal protection. (See Exposure Controls/Personal Protection section.)
2. Conditions for safe storage (including any incompatibilities.
   - Choose a place that can be protected from strong oxidizers and acid.
   - Drum Handling: Must work at safe place., Loading more than 3 stack is prohibited.
   - Store containers: AVOID the place where can be damage and contamination.
   - Store in a cool/low-temperature, well-ventilated {dry} place {away from heat and ignition sources}

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

1. Exposure exposure limits, Biological exposure standard :

※ No exposure limits and biological exposure data of the product. thus data was described

1) WATER

○ Other regulation (Domestic) : Not established

○ ACGIH : Not established

○ Biological standard : Not established

2) SODIUM HYDROXIDE

○ Other regulation (Domestic) :
TWA : 2mg/㎥;

○ ACGIH : Not established

○ Biological standard : Not established

3) POTASSIUM HYDROXIDE

○ Other regulation (Domestic) : Not established

○ ACGIH : Not established

○ Biological standard : Not established

4) Substance1

○ Other regulation (Domestic) : Not established

○ ACGIH : Not established

○ Biological standard : Not established

5) Substance2

○ Other regulation (Domestic) : Not established

○ ACGIH : Not established

○ Biological standard : Not established

2. Appropriate engineering controls

- Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
- Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

3. Personal protection

○ Respiratory protection

- If high frequency of use or exposure, wear air respirator.
- Wear breathing protection, which needs a confirmation from the Korea Occupational Safety and Health Agency.

○ Eye protection

- Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- Wear face shield to protect eyes from scattering dust or hazardous liquid.
- Wear Non-moisture permeable goggle for dust protection.

○ Hand protection

– Wear Non-moisture permeable chemical resistance protective gloves(latex, nitrile rubber, PVC) for prevent skin contact.

○ Body protection

– When contact is likely wear chemical resistant, oil and grease resistant, non-moisture permeable shoes and clothes.

9. PHYSICAL AND CHEMICAL PROPERTIES

1. Appearance : Clear-Brown tranparent liquid
2. Odour : No data available
3. Odour threshold : No data available
4. pH Values : 14.0
5. Melting point/freezing point : No data available
6. Initial boiling point and boiling range : 100℃
7. Flash point : Not applicable
8. Evaporation rate : No data available
9. Flammability(solid, gas) : Not applicable
10. Upper/lower flammability or explosive limits : No data available
11. Solubility : No data available
12. Vapour pressure : No data available
13. Relative density : 1.13(15/4°C)
14. n-octanol/water partition coefficient : No data available
15. Auto ignition temperature : No data available
16. Decomposition temperature : No data available
17. Vapor Densities : No data available
18. Viscosity : No data available
19. Molecular weight(mass) : No data available

10. STABILITY AND REACTIVITY

1. Stability and hazardous reactivity
   - Containers may explode when heated.
   - Fire may produce irritating and/or toxic gases.
   - Fire may produce irritating, corrosive and/or toxic gases.
   - May be corrosive to metals.
   - May cause toxic effects if inhaled.
   - Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
   - Some liquids produce vapors that may cause dizziness or suffocation.
   - Some may burn but none ignite readily.
   - Some may produce flammable hydrogen gas upon contact with metals.

- Stable under normal temperatures and pressures.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.

2. Conditions to avoid
   - Heat.
   - Ignition source(heat, spark, flame, etc.).
3. Incompatible materials
   - Combustibles, reducing material.
   - Combustibles.
   - Irritating and/or toxic gas.
   - Metal.
4. Hazardous decomposition products
   - Corrosive/toxic fume.
   - During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
   - Irritating, corrosive and/or toxic gas.

11. TOXICOLOGICAL INFORMATION

1. Exposure route information
   ○ Following eye contact : Burn, Irritating
   ○ Following ingestion : Burn, Diarrhea, Irritating, Stomachache, Vomiting
   ○ Following inhalation : Burn, Cough, Dyspnoea, Irritating, Throat infection
   ○ Following skin contact : Allergic reaction, Burn, Irritating, Liver abnormality, Renal abnormality
2. Health hazard information
   ※ No data of the product. thus data was described by the product component.

   1) WATER
      ○ ACUTE TOXICITY
         - Oral : Not classified / LD50 > 90 mL/kg
         - Dermal : No data available
         - Inhalation-Gases : No data available
         - Inhalation-Vapours : No data available
         - Inhalation-Dust/mist : No data available
      ○ SKIN CORROSION/IRRITATION : No data available
      ○ SERIOUS EYE DAMAGE/EYE IRRITATION : No data available
      ○ RESPIRATORY SENSITIZATION : No data available
      ○ SKIN SENSITIZATION : No data available
      ○ CARCINOGENICITY : Not classified
         - Notice of Employment and Labor : Not applicable
         - IARC : Not applicable
         - OSHA : Not applicable

- ACGIH : Not applicable
- NTP : Not applicable
- EU CLP : Not applicable

○ GERM CELL MUTAGENICITY : Not classified / Negative Salmonella typhimurium

○ REPRODUCTIVE TOXICITY : No data available

○ SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE : No data available

○ SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE : No data available

○ ASPIRATION HAZARD : No data available

2) SODIUM HYDROXIDE

○ ACUTE TOXICITY

- Oral : No data available
- Dermal : No data available
- Inhalation-Gases : No data available
- Inhalation-Vapours : No data available
- Inhalation-Dust/mist : No data available

○ SKIN CORROSION/IRRITATION : Category 1 / Corrosive Rabbit

○ SERIOUS EYE DAMAGE/EYE IRRITATION : Not classified / Irritating Rabbit

○ RESPIRATORY SENSITIZATION : No data available

○ SKIN SENSITIZATION : Not classified / Not sensitising Human

○ CARCINOGENICITY : Not classified

- Notice of Employment and Labor : Not applicable
- IARC : Not applicable
- OSHA : Not applicable
- ACGIH : Not applicable
- NTP : Not applicable
- EU CLP : Not applicable

○ GERM CELL MUTAGENICITY : Not classified / Negative CHO cell

○ REPRODUCTIVE TOXICITY : No data available

○ SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE : No data available

○ SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE : Not classified / Exposed 7ml of 0.5N NaOH for 1day-10months for rats(Wistar), falling-off of the entire gastric mucosa. It is not directly related with carcinogenesis Rat

○ ASPIRATION HAZARD : No data available

3) POTASSIUM HYDROXIDE

○ ACUTE TOXICITY

- Oral : Not classified / LD50 333 mg/kg Rat
- Dermal : No data available
- Inhalation-Gases : No data available
- Inhalation-Vapours : No data available

- Inhalation-Dust/mist : No data available

○ SKIN CORROSION/IRRITATION : Category 1 / Potentially corrosive Human

○ SERIOUS EYE DAMAGE/EYE IRRITATION : Not classified / Extremely irritating and corrosive Rabbit

○ RESPIRATORY SENSITIZATION : No data available

○ SKIN SENSITIZATION : Not classified / Not sensitising Guinea pig

○ CARCINOGENICITY : Not classified

- Notice of Employment and Labor : Not applicable
- IARC : Not applicable
- OSHA : Not applicable
- ACGIH : Not applicable
- NTP : Not applicable
- EU CLP : Not applicable

○ GERM CELL MUTAGENICITY : Not classified / Negative Salmonella typhimurium

○ REPRODUCTIVE TOXICITY : No data available

○ SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE : No data available

○ SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE : No data available

○ ASPIRATION HAZARD : No data available

4) Substance1

○ ACUTE TOXICITY

- Oral : Not classified / LD50 6400 mg/kg Rat
- Dermal : Not classified / LD50 > 2000 mg/kg Rabbit
- Inhalation-Gases : No data available
- Inhalation-Vapours : No data available
- Inhalation-Dust/mist : No data available

○ SKIN CORROSION/IRRITATION : Not classified / Not irritating Rabbit

○ SERIOUS EYE DAMAGE/EYE IRRITATION : Not classified / Not irritating Rabbit

○ RESPIRATORY SENSITIZATION : No data available

○ SKIN SENSITIZATION : Not classified / Not sensitising Guinea pig

○ CARCINOGENICITY : Not classified

- Notice of Employment and Labor : Not applicable
- IARC : 3
- OSHA : Not applicable
- ACGIH : Not applicable
- NTP : Not applicable
- EU CLP : Not applicable

○ GERM CELL MUTAGENICITY : Not classified / Negative CHO cell

○ REPRODUCTIVE TOXICITY : Not classified / Lower mean number of implantation sites and litter size Rat

○ SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE : No data available

○ SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE : Not classified / Not considered significant Rat

○ ASPIRATION HAZARD : No data available

5) Substance2

○ ACUTE TOXICITY

- Oral : Category 4 / LD50 1781 Rat

○ ACUTE TOXICITY

- Dermal : No data available
- Inhalation-Gases : No data available
- Inhalation-Vapours : No data available
- Inhalation-Dust/mist : No data available

○ SKIN CORROSION/IRRITATION : Not classified / Not irritating Rabbit

○ SERIOUS EYE DAMAGE/EYE IRRITATION : Category 1 / Irreversible effects on the eye Rabbit

○ RESPIRATORY SENSITIZATION : No data available

○ SKIN SENSITIZATION : No data available

○ CARCINOGENICITY : Not classified

- Notice of Employment and Labor : Not applicable
- IARC : Not applicable
- OSHA : Not applicable
- ACGIH : Not applicable
- NTP : Not applicable
- EU CLP : Not applicable

○ GERM CELL MUTAGENICITY : No data available

○ REPRODUCTIVE TOXICITY : No data available

○ SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE : No data available

○ SPECIFIC TARGET ORGAN TOXICITY REPEATED EXPOSURE : No data available

○ ASPIRATION HAZARD : No data available

12. ECOLOGICAL INFORMATION

1. Aquatic toxicity

1) WATER

○ Fish : No data abailable

○ Crustacea : No data abailable

○ Aquatic algae : No data abailable

2) SODIUM HYDROXIDE

○ Fish : LC50 45.5 mg/L Fish

○ Crustacea : EC50 40.4 mg/L Aquatic invertebrates

○ Aquatic algae : No data abailable

3) POTASSIUM HYDROXIDE

○ Fish : No data abailable

○ Crustacea : No data abailable

○ Aquatic algae : No data abailable

4) Substance1

○ Fish : No data abailable

○ Crustacea : No data abailable

○ Aquatic algae : No data abailable

5) Substance2

○ Fish : LC50 792 mg/L Fish

○ Crustacea : No data abailable

○ Aquatic algae : No data abailable

2. Persistence and degradation

1) WATER

○ Degradation : No data abailable

○ n-octanol water partition coefficient : No data abailable

2) SODIUM HYDROXIDE

○ Degradation : No data abailable

○ n-octanol water partition coefficient : No data abailable

3) POTASSIUM HYDROXIDE

○ Degradation : No data abailable

○ n-octanol water partition coefficient : No data abailable

4) Substance1

○ Degradation : DOC 82 %

○ n-octanol water partition coefficient : No data abailable

5) Substance2

○ Degradation : No data abailable

○ n-octanol water partition coefficient : No data abailable

3. Bioaccumulative potential

1) WATER

○ Bioaccumulation : No

○ Biodegradation : No data abailable

2) SODIUM HYDROXIDE

○ Bioaccumulation : No data abailable

○ Biodegradation : No data abailable

3) POTASSIUM HYDROXIDE

○ Bioaccumulation : No data abailable

○ Biodegradation : No data abailable

4) Substance1

○ Bioaccumulation : BCF < 0.4 Fish

○ Biodegradation : BOD 1.3

5) Substance2

○ Bioaccumulation : No data abailable

○ Biodegradation : No data abailable

4. Mobility in soil

1) WATER

- No data abailable

2) SODIUM HYDROXIDE

- No data abailable

3) POTASSIUM HYDROXIDE

- No data abailable

4) Substance1

- Koc 7

5) Substance2

- No data abailable

5. Other adverse effects

1) WATER

- No data abailable

2) SODIUM HYDROXIDE

- No data abailable

3) POTASSIUM HYDROXIDE

- No data abailable

4) Substance1

- No data abailable

5) Substance2

- No data abailable

13. DISPOSAL CONSIDERATIONS

1. Disposal methods

- Every commercial waste producer shall either treat wastes generated from his/her place of business by him/herself or commission the treatment of such wastes to a person who has

business by him/herself or commission the treatment of such wastes to a person who has license for a waste treatment business under Article 26(3), a person who recycles of such wastes under Article 44(2), a person who has installed and operates a waste disposal facility under Article 4 or 5, a person who has completed the registration of a business of discharging wastes into the sea under Article 18 of the Marine Environment Management Act

2. Precautions (including disposal of contaminated container of package.
   - Dispose of contents/container to ...
   - Do not allow spill material to enter sewers, storn water drains, soil, etc.
   - Empty containers may explode and residues can be ignited when pressured, cut, weld, heated.
   - Empty containers may rupture when pressured.
   - Empty containers recycled under environmental laws.
   - Wear an appropriate Personal protection. (See Exposure Controls/Personal Protection section.)

14. TRANSPORT INFORMATION

1. UN No : 1719
2. Proper shipping name : CAUSTIC ALKALI LIQUID, N.O.S.
3. Class or division : 8
4. Packing group : III
5. Marine pollutant : Not Classified
6. Special safety response for transportation or transportation measure :
   ○ Emergency measures in case of fire : F-A
   ○ Emergency measures in the effluent : S-B

15. REGULATORY INFORMATION

1. Occupational safety and health act
   1) WATER
      - Not classified
   2) SODIUM HYDROXIDE
      - Threshold Limit Values (TLVs) chemicals, Harmful Agents Subject to Work
   3) POTASSIUM HYDROXIDE
      - Threshold Limit Values (TLVs) chemicals, Hazardous Substances Subject to
   4) Substance1
      - Not classified
   5) Substance2
      - Not classified

2. Chemical control act

1) WATER

- Existing Chemical Substance

2) SODIUM HYDROXIDE

- Pollutant Release and Transfer Registers, Toxic Chemicals, Existing Chemical

3) POTASSIUM HYDROXIDE

- Pollutant Release and Transfer Registers, Existing Chemical Substance, Toxic

4) Substance1

- Existing Chemical Substance

5) Substance2

- Existing Chemical Substance

3. Safety Control of hazardous substances act in Korea

No harzardous meterial

4. Wastes Control Act in Korea

02-02-00, Waste alkali

5. Other regulations in Korea and overseas regulations

1) WATER

○ Other regulation (Domestic) : Not classified
○ National regulations : Not classified

2) SODIUM HYDROXIDE

○ Other regulation (Domestic) : Not classified
○ National regulations :
-EU Classification (CLASSIFICATION) : C; R35
-EU Classification (Risk Phrases) : R35
-EU Classification (Safety Phrases) : S:(1/2)-26-37/39-45

3) POTASSIUM HYDROXIDE

○ Other regulation (Domestic) : Not classified
○ National regulations :
-EU Classification (CLASSIFICATION) : Xn; R22 C; R35
-EU Classification (Risk Phrases) : R22, R35
-EU Classification (Safety Phrases) : S:(1/2)-26-36/37/39-45

4) Substance1

○ Other regulation (Domestic) : Not classified
○ National regulations : Not classified

5) Substance2

○ Other regulation (Domestic) : Not classified
○ National regulations :
-EU Classification (CLASSIFICATION) : Xn; R22 Xi; R41
-EU Classification (Risk Phrases) : R22, R41
-EU Classification (Safety Phrases) : S:(2)-26-39-46

16. OTHER INFORMATION

1. Reference

- Altern Meth Toxicol, 5, 139-145
- Alternative methods in toxicology, Vol. 1, 205-230
- Archiv fur experimentielle Pathologie und Pharmakologie (Berlin, Germany), 184, 587-604
- Bull. Environm. Contam. Toxicol. 24: 543-549
- Canada Domestic Substance List
- CCRIS
- Ecotoxicology and Environmental Safety,44, 196-206
- Environ.Molec.Mutag. 10 Suppl.10,|1-175 (1987)
- Food Research. Vol. 21, Pg. 348
- Fund. Appl. Toxicol., 8, 97-100
- HSDB
- IARC
- Int. J. Exp. Path. 82, 231-219
- IUCLID
- J Amer Coll Toxicol, 11, 725
- Japan Chemical Industry Ecology-Toxicology & Information Center
- J-CHECK
- Journal of Dermatological Science, 10, 159-165
- Kenkyu Nenpo-Tokyo-Toritsu Eisei Kenkyusho, 43, 219-227
- Mutat Res, 225, 55-60
- NTP
- OECD SIDS
- other company data
- Study report
- Toxicol. Appl. Pharmacol., 32, 239-245
- Toxicology and Applied Pharmacology 55, 501-513 (1980)
- Toxicology and Applied Pharmacology, 42, 417-423
- Toxicology in Vitro, 20,547-559
- Water Research 23(4): 501-510

2. Prepare date : 2020-05-14

3. Revised date

4. Other

fill out based on the standard of the Ministry of Employment and Laborabout data, GHS, MSDS.