

SECTION 1: Identification of the substance/mixture and of the company

Product Identifier

Product Name: 054
Product Number: #054
Recommended Use: Cleaning agent
Uses Advised Against: For Industrial and Institutional Use Only
Manufacturer/Supplier: ARROW CHEMICAL CORPORATION
28 RIDER PL. – FREEPORT, N.Y. 11520
PHONE: (516)377-7770

Emergency Telephone: 1.4.24 Hour Emergency telephone number
INFOTRAC: 800-535-5053 (North America)
352-323-3500 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Caused severe skin burns and eye damage

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)

:



GHS05

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS-US)

: P260 - Do not breathe dust/mist/spray
P264 - Wash hands and forearms thoroughly after handling
P280 - Wear protective gloves/eye protection/face protection
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
P310 - Immediately call a poison center/doctor
P321 - Specific treatment (see First aid measures on this label)
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

Name	Product identifier	%
2-butoxyethanol	(CAS No) 111-76-2	Prop
potassium hydroxide, 45%	(CAS No) 1310-58-3	Prop
Surfactant Blend	Mixture	Prop
Complex inorganic mixture	Mixture	Prop

** *Specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

Mixture Does not contain 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.

SECTION 4: First aid measures

Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately get medical attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately get medical attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes skin burns and eye damage.

Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Reactivity : Thermal decomposition generates Corrosive vapors.

Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Reference to other sections

)

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe dust/mist/spray. Avoid contact during pregnancy/while nursing.
Hygiene measures	: Wash hands and forearms thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Comply with applicable regulations.
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters : This product has not been tested as a whole

2-butyoxyethanol

-OSHA Permissible Exposure Limit (PEL): 50 ppm skin -ACGIH Threshold Limit Value (TLV): 25 ppm (TWA) skin

Sodium Hydroxide

USA ACGIH ACGIH Ceiling (mg/m³) 2 mg/m³

8.2. Exposure controls

Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves/eye protection/face protection protective gloves.
Eye protection	: Chemical goggles or face shield.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Wear appropriate mask.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Fluorescent yellow/green
Odor	: Butyl
Odor threshold	: No data available
pH	: 13
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 212 - 220 °F
Flash point	: ≥ 200 °F
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non Flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: Same as water
Relative density	: 1.03
Solubility	: Soluble in water. Water: Solubility in water of component(
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available

Viscosity, dynamic : No data available
 Explosive properties : No data available
 Oxidizing properties : No data available
 Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapors.

10.2. Chemical stability

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely Routes of Exposure: Eyes, Skin, Ingestion, Inhalation. See 11.1A

Symptoms of Exposure:

- Eye Contact:** Pain, redness and swelling of the conjunctiva.
- Skin Contact:** Drying of the skin.
- Inhalation:** Nasal discomfort and coughing.
- Ingestion:** Pain, nausea, vomiting and diarrhea.

11.1A

The severity of injury depends on the concentration and duration of exposure to the substance. This material is toxic to the skin, eyes, and mucous membranes. It may cause destructive effects on tissues that it contacts. Inhalation will cause irritation to the respiratory tract and difficulty breathing. Eye contact will cause irritation and may cause severe burns and possible blindness. Contact with skin will cause irritation and may cause corrosion of the tissue

Immediate, Delayed, Chronic Effects

Product Information: Data not available or insufficient for classification.

Numerical Measures of Toxicity

The following acute toxicity estimates (ATE) are calculated based on the GHS document.

- ATEmix (oral): Not calculated
- ATEmix (dermal): Not calculated

Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.

Component Acute Toxicity Information

Chemical Name	Oral LD50	Dermal LD50	LC 50
2-butoxyethanol	470 mg/kg	220 mg/kg (rabbit)	450 ppm / 4h
Potassium Hydroxide	273 mg/kg (Rat)	Not listed	Not listed

SECTION 12: Ecological information

)

12.1. Toxicity

Butoxyethanol

LC50 fish 1:116 ppm (96 h; Cyprinodon variegatus; Nominal concentration) EC50 Daphnia 1 1700 mg/l (48 h; Daphnia sp.; Nominal concentration)
 LC50 fish 2 1341 ppm (96 h; Lepomis macrochirus) EC50 Daphnia 2: 1720 mg/l (24 h; Daphnia magna) TLM fish 1:100 - 1000,96 h; Pisces
 TLM other aquatic organisms 1: 100 - 1000,96 h Threshold limit algae 1: 900 mg/l (168 h; Scenedesmus quadricauda)

Potassium Hydroxide:

This material is alkaline and may raise the pH of surface waters with low buffering capacity. This material has exhibited moderate toxicity to aquatic organisms.

Freshwater Fish Toxicity:

LC50 (Mosquito fish): 80 mg/L/96 hr (static bioassay in fresh water at 18-19 C) LC50 (Fathead Minnow): 179 mg/L/96 hr (static at 22.3-24.7 C)

Invertebrate Toxicity:

EC50 (Daphnia magna): 60 mg/L/48 hr (static bioassay at 20.3-20.7 C)

Algae Toxicity:

ErC50 (Selenastrum capricornutum): 61 mg/L/96 hr (static bioassay at 23-23.9 C)

Sodium Hydroxide:

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested). May increase pH of aquatic systems to >pH 10 which may be toxic to aquatic organisms.

Fish Acute & Prolonged Toxicity

LC50, rainbow trout (Oncorhynchus mykiss), 96h: 45.5 mg/L

Aquatic Invertebrate Acute Toxicity :LC50, water flea Daphnia magna: 40-240 mg/L

12.2. Persistence and degradability

#100 Vigor	
Persistence and degradability	Not established.
2-butoxyethanol (111-76-2)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.71 g O ₂ /g substance
Chemical oxygen demand (COD)	2.20 g O ₂ /g substance
2-butoxyethanol (111-76-2)	
ThOD	2.305 g O ₂ /g substance
BOD (% of ThOD)	0.31 % ThOD
potassium hydroxide, 45%=<conc<50%, aqueous solutions (1310-58-3)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

#100 Vigor	
Bioaccumulative potential	Not established.
2-butoxyethanol (111-76-2)	
Log Pow	0.81 (Experimental value; BASF test; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
potassium hydroxide, 45%=<conc<50%, aqueous solutions (1310-58-3)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

2-butoxyethanol (111-76-2)	
Surface tension	0.027 N/m (25 °C)

12.5. Other adverse effects

Effect on ozone layer	: No additional information available
Effect on the global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container in accordance with local/regional/national/international regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT	
Transport document description	: Corrosive Liquid, NOS, 8, UN1760, PGII, (Contains potassium hydroxide)
UN-No.(DOT)	: 1760
DOT NA no.	: UN1760
Proper Shipping Name (DOT)	: Corrosive Liquid, NOS Contains Potassium Hydroxide
Department of Transportation (DOT) Hazard Classes	: 8 - Class 8 - Corrosive material 49 CFR 173.136
Hazard labels (DOT)	: 8 - Corrosive
	
DOT Symbols	: D - Proper shipping name for domestic use only, or to and from Canada,G - Identifies PSN requiring a technical name
Packing group (DOT)	: II - Medium Danger

ADR

Transport document description	:
--------------------------------	---

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

potassium hydroxide, 45%=<conc<50%, aqueous solutions (1310-58-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Not listed on the United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
SARA Section 311/312	Acute Hazard
2-2 - iminodiethanol (111-42-2)	
Sara Section 311/312	Acute Hazard, Fire Hazard
RQ (Reportable Quantity, section 304	100 lbs
Sodium Hydroxide Solution (1310-73-2)	
SARA Section 311/312	Acute hazard
RQ (Reportable Quantity, section 304	1000 lbs
2-butoxyethanol (111-76-2)	
SARA Section 313 Toxic Chemical List	2-Butoxyethanol
RQ (Reportable Quantity, section 304	100 lbs
SARA Section 311/312	Immediate (acute) hazard, Delayed (Chronic) hazard, Fire Hazard

Classification according to Regulation (EC) No. 1272/2008 [CLP] Classification

according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

2-Aminoethanol, CAS #141-43-5 is subject to Right to Know regulations in MA, NJ and PA
Potassium hydroxide, CAS #1310-58-3 is subject to Right to Know Regulations in MA, NJ, PA and RI
Sodium hydroxide, CAS #1310-73-2 is subject to Right to Know regulations in MA, NJ, PA and RI

SECTION 16: Other information

Date: May 30, 2015
New Or Revision: New
Reason for Revision: NA
Written by: Staff
Other information : None.

HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur
Flammability : 0 Minimal Hazard
Physical : 1 Slight Hazard
Personal Protection : B

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the produ

