



Revision Number: 004.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: AQUENCE GL 4106 KNOWN AS OPTAL 4106
Product type: Adhesive
Restriction of Use: None identified
Company address: Henkel Corporation
 One Henkel Way
 Rocky Hill, Connecticut 06067

IDH number: 1215657

Region: United States

Contact information:
 Telephone: (860) 571-5100
 MEDICAL EMERGENCY Phone: Poison Control Center
 1-877-671-4608 (toll free) or 1-303-592-1711
 TRANSPORT EMERGENCY Phone: CHEMTREC
 1-800-424-9300 (toll free) or 1-703-527-3887
 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: MAY BE CORROSIVE TO METALS.
 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

HAZARD CLASS	HAZARD CATEGORY
CORROSIVE TO METALS	1
SKIN CORROSION	1A
SERIOUS EYE DAMAGE	1

PICTOGRAM(S)



Precautionary Statements

Prevention: Keep only in original container. Do not breathe vapors, mist, or spray. Wash thoroughly after handling. Wear protective gloves, eye protection, and face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. Immediately call a poison control center or physician. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage: Store locked up. Store in corrosive resistant container with a resistant inner liner.

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Nitric acid	7697-37-2	5 - 10
Potassium hydroxide	1310-58-3	5 - 10

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If symptoms develop and persist, get medical attention.
Skin contact:	Wash affected area immediately with soap and water. Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	If material is ingested, immediately contact a physician or poison control center. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
Symptoms:	See Section 11.
Notes to physician:	Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Use extinguishing measures appropriate to local circumstances and the surrounding environment.
Special firefighting procedures:	Keep unnecessary personnel away. Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Unusual fire or explosion hazards:	This product is an aqueous mixture which will not burn. If evaporated to dryness, the solid residue may pose a slight fire hazard. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon. Irritating and toxic gases or fumes may be released during a fire.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Prevent further leakage or spillage if safe to do so. Do not empty into drains / surface water / ground water.
Clean-up methods:	Small spills can be absorbed with vermiculite, clay or other suitable non-biodegradable absorbent material, scooped up and placed in containers. For large spills dike ahead and collect liquid. Follow all local, state, federal and provincial regulations for disposal.

7. HANDLING AND STORAGE

Handling: Wash thoroughly after handling. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Keep container closed. Do not breathe gas/fumes/vapor/spray.

Storage: For safe storage, store between 5 °C (41°F) and 37 °C (98.6 °F) Keep the container tightly closed and in a cool, well-ventilated place. Protect from freezing.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Nitric acid	2 ppm TWA 4 ppm STEL	2 ppm (5 mg/m ³) PEL	None	None
Potassium hydroxide	2 mg/m ³ Ceiling	None	None	None

Engineering controls: Work should be done in an adequately ventilated area (i.e., ventilation sufficient to maintain concentrations below one half of the PEL and other relevant standards). Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s). Observe OSHA regulations for respirator use (29 CFR 1910.134).

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

Skin protection: Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Yellow
Odor:	Dextrin
Odor threshold:	Not available.
pH:	11.0
Vapor pressure:	Not determined
Boiling point/range:	100.0 °C (212°F) Approximately
Melting point/ range:	< 5 °C (< 41°F) (Freezing point)
Specific gravity:	1.20
Vapor density:	Not determined
Flash point:	No flash point up to 100°C. Aqueous preparation.
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not applicable
Evaporation rate:	Not determined
Solubility in water:	Miscible
Partition coefficient (n-octanol/water):	Not determined
VOC content:	Not available.
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Oxides of carbon. Thermal decomposition can lead to release of irritating gases and vapors.
Incompatible materials:	Avoid contact with materials that are water reactive.
Reactivity:	Not available.
Conditions to avoid:	Freezing conditions.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation:	Can cause severe irritation and burns to the respiratory tract. May cause pulmonary edema.
Skin contact:	Contact with liquid may produce severe skin irritation including redness, inflammation and chemical burns. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Eye contact:	Mists, vapors or liquid may cause severe irritation or burns. Symptoms include itching, burning, redness and tearing. Contact with the eyes can cause severe burns and permanent eye damage.
Ingestion:	Not expected under normal conditions of use. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Nitric acid	Inhalation LC50 (RAT, 30 min) = 334 mg/l Inhalation LC50 (RAT, 30 min) = 244 mg/l Inhalation LC50 (RAT, 30 min) = 138 mg/l Inhalation LC50 (RAT, 4 h) = 65 mg/l	Irritant, Corrosive, Lung, Teeth
Potassium hydroxide	Oral LD50 (RAT) = 273 mg/kg Oral LD50 (RAT) = 1.23 g/kg	Corrosive, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Nitric acid	No	No	No
Potassium hydroxide	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Do not empty into drains / surface water / ground water.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal:	Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable federal, state and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product.
Hazardous waste number:	To the best of our knowledge, this product is not listed nor does it meet the criteria of a hazardous waste if discarded in its purchased form. However, under RCRA, it is the responsibility of the user to determine at the time of disposal whether a product meets any of the RCRA hazardous waste criteria. This is because product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics under the new Toxicity Characteristics Leaching Procedure (TCLP) 40 Code of Federal Regulations 261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

International Air Transportation (ICAO/IATA)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

Water Transportation (IMO/IMDG)

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	Nitric acid (CAS# 7697-37-2).
CERCLA/SARA Section 311/312:	Immediate Health
CERCLA/SARA Section 313:	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Nitric acid (CAS# 7697-37-2).
CERCLA Reportable quantity:	Nitric acid (CAS# 7697-37-2) 1,000 lbs. (454 kg) Potassium hydroxide (CAS# 1310-58-3) 1,000 lbs. (454 kg)
California Proposition 65:	No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDL Status:	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
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16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Jennifer Altman, Sr. Regulatory Affairs Specialist

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Rudolph Bros. & Co.
6550 Oley Speaks Way
Canal Winchester, OH 43110
Phone: 614-833-0707
Fax: 800-600-9508
e-mail: rbcsupport@rudbro.com
www.rudbro.com