SAFETY DATA SHEET

1. Identification

Product identifier **QUICK & CLEAN KA INDUSTRIAL DEGREASER**

Other means of identification

SDS number 489N-56A

Product code HIL01006

Recommended use Degreaser

Recommended restrictions DO NOT USE ON GLASS

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Manufacturer

Company name HILLYARD INDUSTRIES

Address 302 North Fourth St.
St. Joseph, MO 64501

Contact person Regulatory Affairs

Telephone number (816) 233-1321 (Ext. 8285)

Fax (816) 383-8485

E-mail regulatoryaffairs@hillyard.com

Emergency telephone # (800) 424-9300
(Only in the event of chemical emergency involving a spill, leak, fire, exposure, or accident involving chemicals.)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Acute toxicity, inhalation	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Warning

Hazard statement Causes skin irritation. Causes serious eye irritation. Harmful if inhaled.

Precautionary statement

Prevention Avoid breathing vapors. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves. Wear eye/face protection.

Response If on skin: Wash with plenty of water. 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 do. Continue rinsing. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage Store away from incompatible materials.

Disposal Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law in compliance with applicable federal, state and local requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Ethylene glycol monobutyl ether		111-76-2	3 - < 5
Silicic acid, Sodium Salt		6834-92-0	1 - < 3
ACETALDEHYDE		75-07-0	0.00003
ETHYLENE OXIDE		75-21-8	0.00003
Other components below reportable levels			90 - 100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact
Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed
Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information
In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not get this material in contact with skin. Avoid breathing vapor. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
ETHYLENE OXIDE (CAS 75-21-8)	STEL	5 ppm
	TWA	1 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
ACETALDEHYDE (CAS 75-07-0)	PEL	360 mg/m3
		200 ppm
Ethylene glycol monobutyl ether (CAS 111-76-2)	PEL	240 mg/m3
		50 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
ACETALDEHYDE (CAS 75-07-0)	Ceiling	25 ppm
Ethylene glycol monobutyl ether (CAS 111-76-2)	TWA	20 ppm
ETHYLENE OXIDE (CAS 75-21-8)	TWA	1 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethylene glycol monobutyl ether (CAS 111-76-2)	TWA	24 mg/m3
		5 ppm
ETHYLENE OXIDE (CAS 75-21-8)	Ceiling	9 mg/m3
		5 ppm
	TWA	0.18 mg/m3
		0.1 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Ethylene glycol monobutyl ether (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Ethylene glycol monobutyl ether (CAS 111-76-2)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Ethylene glycol monobutyl ether (CAS 111-76-2)	Skin designation applies.

US - Tennessee OELs: Skin designation

Ethylene glycol monobutyl ether (CAS 111-76-2)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Ethylene glycol monobutyl ether (CAS 111-76-2)	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Ethylene glycol monobutyl ether (CAS 111-76-2)	Can be absorbed through the skin.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical goggles are recommended.

Skin protection

Hand protection For prolonged or repeated skin contact use suitable protective gloves.

Other None normally required. If unable to avoid prolonged or repeated contact with skin, wear impervious clothing.

Respiratory protection Not normally needed.
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards None known.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Clear, red liquid

Physical state Liquid.

Form Liquid.

Color Red

Odor Lemon odor

Odor threshold Not available

pH 12.5 - 13.5

Melting point/freezing point 32 °F (0 °C)

Initial boiling point and boiling range 218 °F (103.33 °C)

Flash point > 218.0 °F (> 103.3 °C) Tag Closed Cup None to boiling

Evaporation rate < 1 (ethyl ether = 1)

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 17.5 mm Hg

Vapor density 0.7 Air = 1

Relative density 1.02 at 77°F

Solubility(ies)

Solubility (water) 100 % Complete

Partition coefficient (n-octanol/water) Not available

Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Other information	
Density	8.50 lb/gal
Percent volatile	95.5 - 96.5 %
VOC (Weight %)	3 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the flash point. Reacts violently with strong acids. This product may react with oxidizing agents. Do not mix with other chemicals. Contact with incompatible materials.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled.
Skin contact	Causes skin irritation. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Harmful if inhaled.

Product	Species	Test Results
QUICK & CLEAN KA INDUSTRIAL DEGREASER		
Acute		
Dermal		
LD50	Rabbit	13333.333 mg/kg estimated
Inhalation		
LC50	Guinea pig	88.8889 mg/l, 2 Hours estimated
	Mouse	27600 mg/l, 4 Hours estimated
		23333.334 ppm, 7 Hours estimated
		133.3333 mg/l, 2 Hours estimated
	Rat	54666.668 mg/l, 0.5 Hours estimated
		32000 mg/l, 4 Hours estimated
		15000 ppm, 4 Hours estimated
		255.5556 mg/l, 2 Hours estimated
Oral		
LD50	Guinea pig	40 g/kg estimated
	Mouse	40 g/kg estimated
	Rabbit	10.6667 g/kg estimated
	Rat	15352.8555 mg/kg estimated

Components	Species	Test Results
ACETALDEHYDE (CAS 75-07-0)		
Acute		
Dermal		
LD50	Rabbit	3540 mg/kg
Inhalation		
LC50	Hamster	17000 ppm, 4 Hours
		31 mg/l, 4 Hours
	Mouse	1500 ppm, 4 Hours
	Rat	37 mg/l, 30 Minutes
		24 mg/l, 4 Hours
Oral		
LD50	Dog	> 600 mg/kg
	Mouse	1230 mg/kg
	Rat	661 mg/kg
Ethylene glycol monobutyl ether (CAS 111-76-2)		
Acute		
Dermal		
LD50	Rabbit	400 mg/kg
Inhalation		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
Oral		
LD50	Guinea pig	1.2 g/kg
	Mouse	1.2 g/kg
	Rabbit	0.32 g/kg
	Rat	560 mg/kg
ETHYLENE OXIDE (CAS 75-21-8)		
Acute		
Inhalation		
LC50	Dog	973 ppm, 4 Hours
		1.8 mg/l, 4 Hours
	Guinea pig	1.5 mg/l, 4 Hours
	Mouse	1.505 mg/l, 4 Hours
	Rat	1.44 mg/l, 4 Hours
		0.9 mg/l, 1 Hours
Oral		
LD50	Guinea pig	270 mg/kg
	Mouse	280 mg/kg
	Rat	72 mg/kg
Silicic acid, Sodium Salt (CAS 6834-92-0)		
Acute		
Oral		
LD50	Mouse	2400 mg/kg
	Rat	1280 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethylene glycol monobutyl ether (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.
ETHYLENE OXIDE (CAS 75-21-8)	1 Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

ACETALDEHYDE (CAS 75-07-0)	Reasonably Anticipated to be a Human Carcinogen.
ETHYLENE OXIDE (CAS 75-21-8)	Known To Be Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

ETHYLENE OXIDE (CAS 75-21-8)	Cancer

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful. May be harmful if absorbed through skin.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product		Species	Test Results
QUICK & CLEAN KA INDUSTRIAL DEGREASER			
Aquatic			
Crustacea	EC50	Daphnia	560.3126 mg/l, 48 hours estimated
Fish	LC50	Fish	742.6127 mg/l, 96 hours estimated
Components		**Species**	**Test Results**
ACETALDEHYDE (CAS 75-07-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	39.4 - 59.1 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	28 - 34 mg/l, 96 hours
ETHYLENE OXIDE (CAS 75-21-8)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	73 - 96 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

ETHYLENE OXIDE	-0.3

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not contaminate ponds, waterways or ditches with chemical or used container. Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Triple rinse (or equivalent). Then offer clean, dry container for recycling or reconditioning.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List or Exempt.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

ACETALDEHYDE (CAS 75-07-0)	0.1 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

ACETALDEHYDE (CAS 75-07-0)	Listed.
ETHYLENE OXIDE (CAS 75-21-8)	Listed.

SARA 304 Emergency release notification

ETHYLENE OXIDE (CAS 75-21-8)	10 LBS

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

ETHYLENE OXIDE (CAS 75-21-8)	Cancer Reproductive toxicity Mutagenicity Central nervous system Skin sensitization Skin irritation Eye irritation respiratory tract irritation Acute toxicity Flammability

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
ETHYLENE OXIDE	75-21-8	10	1000 lbs		

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

ACETALDEHYDE (CAS 75-07-0)
ETHYLENE OXIDE (CAS 75-21-8)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

ACETALDEHYDE (CAS 75-07-0)
ETHYLENE OXIDE (CAS 75-21-8)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

ACETALDEHYDE (CAS 75-07-0)
Ethylene glycol monobutyl ether (CAS 111-76-2)
ETHYLENE OXIDE (CAS 75-21-8)

US. New Jersey Worker and Community Right-to-Know Act

ACETALDEHYDE (CAS 75-07-0)
Ethylene glycol monobutyl ether (CAS 111-76-2)
ETHYLENE OXIDE (CAS 75-21-8)

US. Pennsylvania Worker and Community Right-to-Know Law

ACETALDEHYDE (CAS 75-07-0)
Ethylene glycol monobutyl ether (CAS 111-76-2)
ETHYLENE OXIDE (CAS 75-21-8)

US. Rhode Island RTK

ACETALDEHYDE (CAS 75-07-0)
ETHYLENE OXIDE (CAS 75-21-8)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

ACETALDEHYDE (CAS 75-07-0)	Listed: April 1, 1988
ETHYLENE OXIDE (CAS 75-21-8)	Listed: July 1, 1987

US - California Proposition 65 - CRT: Listed date/Developmental toxin

ETHYLENE OXIDE (CAS 75-21-8)	Listed: August 7, 2009

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

ETHYLENE OXIDE (CAS 75-21-8)	Listed: February 27, 1987

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

ETHYLENE OXIDE (CAS 75-21-8)	Listed: August 7, 2009

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 03-25-2015

Version # 01

HMIS® ratings Health: 2
Flammability: 0
Physical hazard: 0

Disclaimer

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