

# SAFETY DATA SHEET

## 1. Identification of the substance/mixture and of the company

### 1.1 Product identifier

**Product Name:**  
**Type KC™ Contact Cleaner Aerosol**

**Product ID numbers:** KC-16, KC-16LA

### 1.2 Relevant identified uses of the mixture and uses advised against

**Identified uses:** Contact cleaning

**List of advices against:** Not applicable.

### 1.3 Details of the supplier of the safety data sheet

#### Supplier/Manufacturer:

**American Polywater Corporation**  
11222 - 60th Street North  
Stillwater, MN 55082 USA  
Tel: 1-651-430-2270  
Email: sds@polywater.com

**Powerhouse Electric Limited**  
289 Rosebank Road,  
Avondale, Auckland 1026, NZ  
09 373 4487

### 1.4 Emergency telephone numbers

INFOTRAC 1-352-323-3500 (USA)  
National Poison Centre) 0800 764 766 and 0800 Poison

## 2. Hazards Identification

### 2.1 Classification of the substance or mixture

Classification according to USA OSHA 29 CFR 1910.1200 (2012) and Canada HPR (SOR/2015-17; WHMIS 2015).

Aerosol 3	H229
Eye Irrit 2B	H320
STOT Se 3 (CNS)	H336

### 2.2 Label elements

This product is intended for consumer use and is labeled according to CPSC guidelines and not to GHS guidelines listed below. It is safe for consumers and other users under normal and reasonably foreseeable use. The SDS contains valuable information for industrial workplace conditions.

**Contains:** Ethyl nonafluoroisobutyl ether, Ethyl nonafluorobutyl ether, trans-Dichloroethylene, norflurane



#### Pictograms:

GHS07

GHS04

#### Signal word:

Warning

#### Hazard Statements:

H229	Pressurized container, may burst if heated
H320	Causes eye irritation.
H336	May cause drowsiness or dizziness.

#### Precautionary Statements:

P210	Keep away from flames and hot surfaces. No smoking.
P251	Do not pierce or burn, even after use.

P261	Avoid breathing spray or vapors.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical attention.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501	Dispose of contents/container in accordance with local and national regulations.

**2.3 Other hazards:** No information available.

**3. Composition/Information on Ingredients**

<u>Component</u>	<u>CAS #</u>	<u>EC #</u>	<u>Wt. %</u>
Ethyl nonafluorobutyl ether	163702-05-4	--	< 30
Ethyl nonafluoroisobutyl ether	163702-06-5	--	< 30
Trans-Dichloroethylene	156-60-5	205-860-2	< 15
1,1,1,2-Tetrafluoroethane	811-97-2	212-377-0	< 30

**4. First Aid Measures**

**4.1 Description of first aid measures**

- Eye Contact:** Flush eyes with clean water. Remove contact lenses if easy to do. Continue rinsing. If irritation persists, seek medical attention.
- Skin Contact:** Remove contaminated clothing; flush skin thoroughly with water. If irritation occurs, seek medical attention.
- Inhalation (Breathing):** If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention.
- Ingestion (Swallowing):** Rinse mouth. If you feel unwell, get medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

Refer to Section 11 for more information.

**4.3 Indication of immediate medical attention and special treatment needed.**

No information available.

**5. Firefighting Measures**

**5.1 Extinguishing media:**

Carbon dioxide, water fog, dry chemical or foam.

**5.2 Special hazards arising from the substance or mixture**

**Hazardous decomposition and by-products:**

Burning generates CO, CO<sub>2</sub> and smoke. Smoke may be acrid and fumes irritating.

**5.3 Advice for firefighters**

Wear full protective clothing, including self-contained, positive pressure or pressure-demand breathing apparatus. Sealed container can build up pressure when exposed to high heat. Use water spray to cool fire exposed containers. Aerosol cans can build up pressure and explode when exposed to temperatures greater than 122°F (50°C).

**6. Accidental Release Measures**

**6.1 Personal precautions, protective equipment and emergency procedures:**

Keep away from heat/sparks/open flames/hot surfaces. No smoking. For a spill in a confined space, provide mechanical ventilation to disperse or exhaust vapors. For emergency responders: use respiratory protection: half-face or full-face respirator with filter(s) for organic vapor for spills in a confined space. Refer to other sections of this SDS for information regarding physical and health hazards and personal protective equipment.

**6.2 Environmental precautions:**

Avoid release to the environment. Dyke the spill to prevent entry into waterways, sewers, basements or confined areas.

**6.3 Methods materials for containment and cleaning up:**

Absorb spill with sand or absorbents. Collect as much of the spilled material as possible using non-sparking tools and transfer to a container. Seal the container. Remember, adding an absorbent material does not change the toxicity or flammability hazard.

**6.4 Reference to other sections:**

Refer to Sections 4, 5, 8, and 13 for more information.

**7. Handling and Storage**

**7.1 Precautions for safe handling**

Avoid breathing vapors or spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Wash contaminated clothing before reuse. For industrial or professional use only.

**7.2 Conditions for safe storage, including incompatibilities**

Do not expose container to direct sunlight or temperatures above 122°F (50°C). Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store away from acids and oxidizing agents.

**7.3 Specific end uses**

See product literature for further information.

**8. Exposure Controls / Personal Protection**

**8.1 Control parameters**

**Exposure limits and recommendations:**

**Ethyl nonafluorobutyl ether (163702-05-4)**

Country/Source	Long-term exposure limit – 8 hr. TWA	Short-term exposure limit – 15 min
Manufacturer, RCP* TWA	200 ppm	--
USA, ACGIH TWA	750 ppm	Not established
USA, OSHA PEL	--	--

**Ethyl nonafluoroisobutyl ether (163702-06-5)**

Country/Source	Long-term exposure limit – 8 hr. TWA	Short-term exposure limit – 15 min
Manufacturer, RCP* TWA	200 ppm	--
USA, ACGIH TWA	750 ppm	Not established
USA, OSHA PEL	--	--

**Trans-Dichloroethylene (156-60-5)**

Country/Source	Long-term exposure limit – 8 hr. TWA	Short-term exposure limit – 15 min
USA, ACGIH TWA	200 ppm	--
USA, OSHA PEL	790 mg/m <sup>3</sup> , 200 ppm	--

**1,1,1,2-Tetrafluoroethane (811-97-2)**

Country/Source	Long-term exposure limit – 8 hr. TWA	Short-term exposure limit – 15 min
WKS-15 New Zealand Workplace Standards	1,000 ppm	--
USA, AIHA OEL	1,000 ppm	--
USA, OSHA PEL	--	--

**8.2 Exposure controls**

**Respiratory protection:**

Normal ventilation is adequate. If exposure exceeds recommended limits, respirator protection is recommended. Use a respirator or gas mask with cartridges for organic vapors (NIOSH or CE approved) with particulate pre-filter, P100 or AP2.

**Protective gloves:**

No chemical protective gloves are required.

**Eye protection:**

Safety goggles recommended.

**Other protective equipment:**

It is suggested that a source of clean water be available in work area for flushing eyes and skin. Impervious clothing should be worn as needed.

**9. Physical and Chemical**

**9.1 Information of basic physical and chemical properties (bulk liquid)**

<b>Appearance:</b>	Clear, colorless liquid in aerosol package.
<b>Odor threshold:</b>	Not available
<b>pH:</b>	Not available
<b>Freezing point:</b>	Not available
<b>Boiling point:</b>	Not available
<b>Flash point:</b>	None
<b>Evaporation rate:</b>	Not available
<b>Flammability (solid, gas):</b>	Not applicable to liquids
<b>Upper/lower flammability or explosive limits:</b>	LEL = 6.7% UEL = 13.7%
<b>Vapor pressure:</b>	330 mm Hg
<b>Vapor density (Air = 1):</b>	Not available
<b>Specific gravity (H<sub>2</sub>O = 1):</b>	1.4
<b>Solubility in water:</b>	Negligible
<b>Partition coefficient: n-octanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	396°C
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	0.6 centipoise

**9.2 Other Information**

<b>Volatiles (Weight %):</b>	100%
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**10. Stability and Reactivity**

**10.1 Reactivity:**

See remaining headings in Section 10.

**10.2 Chemical stability:**

Stable

**10.3 Possibility of hazardous reactions:**

None known.

**10.4 Conditions to avoid:**

High shear, high temperature conditions.

**10.5 Incompatible materials :**

Aluminum or Magnesium powder.

**10.6 Hazardous decomposition products:**

Above the boiling point, small amounts of toxic decomposition products may form, including hydrogen fluoride, hydrogen chloride, and perfluoroisobutylene.

**11. Toxicological Information**

**11.1 Information on toxicological effects:**

**Acute toxicity**

**Eye contact:**

Moderate eye irritant.

**Skin contact:**

Contact with skin during use is not expected to result in significant irritation. Persons with pre-existing skin disorders may be more susceptible to skin irritation from this material.

**Irritation and Sensitization Potential:**

Product is not a sensitizer.

**Inhalation (Breathing):**

May cause irritation of the nose and throat. May cause drowsiness or dizziness. Signs/symptoms include cough, sneezing, nasal discharge, headache, hoarseness and nose and throat pain.

**Ingestion:**

May be harmful if swallowed. Gastrointestinal irritation signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

**Toxicity to Animals:**

Ethyl nonafluorobutyl ether	LD <sub>50</sub> (oral rat)	>2,000 mg/kg
	LC <sub>50</sub> (inhl rat)	>989 mg/L, 4 hours
Ethyl nonafluoroisobutyl ether	LD <sub>50</sub> (oral rat)	>2,000 mg/kg
	LC <sub>50</sub> (inhl rat)	>989 mg/L, 4 hours
	RD <sub>50</sub>	1000 ppm
Trans-Dichloroethylene	LD <sub>50</sub> (oral rat)	>5,000 mg/kg
	LD <sub>50</sub> (dermal rabbit)	>5,000 mg/kg
	LC <sub>50</sub> (inhl rat)	95.6 mg/L, 4 hours
Norflurane	LC <sub>50</sub> (inhl rat)	>500,000 ppm, 4 hours

**Chronic Exposure:**

**Reproductive Toxicity:**

	Not available.	
	NOAEL 1,000 mg/kg	
Ethyl nonafluorobutyl ether	(oral rat, 28 days)	Not toxic to reproduction and/or development
	NOAEL 1,000 mg/kg/day	
	(oral rat, 28 days)	Not toxic to female reproduction
	NOAEL 1,000 mg/kg/day	
	(oral rat, 28 days)	Not toxic to male reproduction
	NOAEL 3,000 ppm (inhl rat)	Not toxic to reproduction and/or development
	NOAEL 260.1 mg/l	
	(inhl rat, during gestation)	Not toxic to female reproduction
	NOAEL 263.4 mg/l	
	(inhl rat, 28 days)	Not toxic to male reproduction
	NOAEL 260 mg/l	Some positive developmental data exist, but
	(inhl rat, 28 days)	not sufficient for classification
Ethyl nonafluoroisobutyl ether	NOAEL 1,000 mg/kg	Not toxic to reproduction and/or development

	(oral rat, 28 days) NOAEL 1,000 mg/kg/day	
	(oral rat, 28 days) NOAEL 1,000 mg/kg/day	Not toxic to female reproduction
	(oral rat, 28 days) NOAEL 3,000 ppm (inhl rat)	Not toxic to male reproduction
	NOAEL 260.1 mg/l (inhl rat, during gestation)	Not toxic to reproduction and/or development
	NOAEL 263.4 mg/l (inhl rat, 28 days)	Not toxic to female reproduction
	NOAEL 260 mg/l (inhl rat, 28 days)	Not toxic to male reproduction
		Some positive developmental data exist, but not sufficient for classification
Trans-Dichloroethylene	NOAEL 3,000 mg/kg/day (oral rat, 90 days)	Not toxic to female reproduction
	NOAEL 3,000 mg/kg/day (oral rat, 90 days)	Not toxic to male reproduction
	NOAEL 16 mg/l (inhl rat, 90 days)	Not toxic to female reproduction
	NOAEL 16 mg/l (inhl rat, 90 days)	Not toxic to male reproduction
	NOAEL 24 mg/l (inhl rat, during organogenesis)	Some positive developmental data exist, but not sufficient for classification
<b>Mutagenicity:</b>	Not available.	
<b>Teratogenicity:</b>	Not available.	

**Specific Target Organ**

**Toxicity (STOT) –**

**Single Exposure**

	Test Parameter	Target Organ(s)	Value
Ethyl nonafluorobutyl ether	NOAEL 204 mg/l (inhl dog, 17 mins)	Cardiac sensitization	Some positive data exist, but not sufficient for classification
	NOAEL 989 mg/l (inhl rat, 4 hrs.)	Respiratory irritation	All data negative
Ethyl nonafluoroisobutyl ether	NOAEL 204 mg/l (inhl, dog, 17 mins)	Cardiac sensitization	Some positive data exist, but not sufficient for classification
	NOAEL 989 mg/l (inhl rat, 4 hrs.)	Respiratory irritation	All data negative
	NOAEL not available (inhl human, occupational exposure)	CNS depression	Some positive data exist, but not sufficient for classification
Trans-Dichloroethylene	NOAEL not available (inhl human, occupational exposure)	Respiratory irritation	Some positive data exist, but not sufficient for classification
	LOAEL 4,500 mg/kg (oral rat, not applicable)	CNS depression	May cause drowsiness or dizziness
	NOEL 50,000 ppm (inhl, dog)	Cardiac sensitization	All data negative

**Specific Target Organ**

**Toxicity (STOT) –**

**Repeated Exposure**

	Test Parameter	Target Organ(s)	Value
Ethyl nonafluorobutyl ether	NOAEL 263.4 mg/l (inhl rat, 4 weeks)	Liver, kidney and/or bladder, respiratory system	Some positive data exist, but not sufficient for classification
		Heart, endocrine system, bone marrow, hematopoietic system, nervous system, immune system	All data negative

	NOAEL 1,000 mg/kg/day (oral rat, 28 days)	Blood, liver, kidney and/or bladder Heart, endocrine system, bone marrow, hematopoietic system, nervous system, immune system	Some positive data exist, but not sufficient for classification
	NOAEL 1,000 mg/kg/day (oral rat, 28 days)	Liver, kidney and/or bladder, respiratory system	All data negative
Ethyl nonafluoroisobutyl ether	NOAEL 263.4 mg/l (inhl rat, 4 weeks)	Heart, endocrine system, bone marrow, hematopoietic system, nervous system, immune system	Some positive data exist, but not sufficient for classification
	NOAEL 263.4 mg/l (inhl rat, 4 weeks)	Blood, liver, kidney and/or bladder Heart, endocrine system, bone marrow, hematopoietic system, nervous system, immune system	All data negative
	NOAEL 1,000 mg/kg/day (oral rat, 28 days)	Blood, liver, kidney and/or bladder Heart, endocrine system, bone marrow, hematopoietic system, nervous system, immune system	Some positive data exist, but not sufficient for classification
	NOAEL 1,000 mg/kg/day (oral rat, 28 days)	Endocrine system, liver, kidney and/or bladder, respiratory system	All data negative
Trans-Dichloroethylene	NOAEL 16 mg/l (inhl rat, 90 days)	Kidney and/or bladder	All data negative
	NOAEL 2,000 mg/kg/day (oral rat, 14 weeks)	Blood, liver Heart, immune system, respiratory system	Some positive data exist, but not sufficient for classification
	NOAEL 125 mg/kg/day (oral rat, 14 weeks)		Some positive data exist, but not sufficient for classification
	NOAEL 2,000 mg/kg/day (oral rat, 28 days)		All data negative
<b>Toxicologically Synergistic Products:</b>	Not available.		
<b>Carcinogenic Status:</b>	This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC, or OSHA, nor have any of its components.		

**12. Ecological Information**

**12.1 Toxicity:**

**Ecotoxicity:** No information available.

**Aquatic Toxicity:** No information available.

**12.2 Persistence and degradability:** No information available.

**12.3 Bioaccumulation potential:** No information available

**12.4 Mobility in soil:** No information available.

**12.5 Results of PBT and vPvB Assessment:** This product is not, nor does it contain a substance that is a PBT or vPvB.

**12.6 Other adverse effects:** None known.

**13. Disposal Considerations**

Dispose of product in accordance with National and Local Regulations.

#### 14. Transport Information

<b>UN Number:</b>	1950
<b>UN Proper shipping name:</b>	AEROSOLS, Nonflammable, less than 1 liter each, Class 2.2, LTD QTY
<b>Transport hazard class(es):</b>	Class 9
<b>Packing group:</b>	Not Applicable
<b>Environmental hazards:</b>	None known
<b>Special precautions:</b>	None known
<b>TDG:</b>	Not Regulated
<b>ICAO/IATA-DGR:</b>	Consumer Commodity, ID 8000, Class 9, LTD QTY UN 1950, AEROSOLS, Nonflammable, less than 1 liter each, Class 2.2, LTD QTY
<b>IMDG:</b>	QTY

#### 15. Regulatory Information

##### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

###### 15.1.1. NZ-Regulations

All chemical substances in this product are listed in the New Zealand Inventory of Chemicals (NZIoC) or are exempt

This substance is to be managed using the conditions specified in an applicable Group Standard

###### **HSR Number**

HSR002519 Aerosols (Subsidiary hazard) Group Standard 2017

###### 15.1.2. EU-regulations

- Contains no REACH substances with Annex XVII restrictions
- Contains no substance on the REACH candidate list
- Contains no REACH Annex XIV substances
- Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
- Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

###### 15.1.3. Australian-regulations

All components are listed on the AICS.

Product is classified as hazardous according to criteria of NOHSC Australia.

###### 15.1.4. International-regulations

All chemical substances in this product are listed as “Active” in the US EPA (Environmental Protection Agency) “TSCA Inventory Notification (Active-Inactive) Requirements Rule” (“the Final Rule”). as of Feb. 2019 or are otherwise exempt.

##### 15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for the mixture by the supplier.

#### 16. Other Information

##### **Abbreviations and acronyms:**

OSHA = Occupational Safety and Health Administration

CLP = Classification, Labeling and Packaging Regulation



**Product Name:** Type KC™ Contact Cleaner Aerosol (KC-16)

**Revision Date:** March 14, 2022

STOT = Specific Target Organ Toxicity

LD<sub>50</sub> = Median Lethal Dose

DNEL = Derived No Effect Level

ACGIH = American Conference of Governmental Industrial Hygienists

TSCA = Toxic Substances Control Act (USA)

DSL = Domestic Substances List (Canada)

AICS = Australian Inventory of Chemical Substances

**Revision Date:** March 14, 2022  
**Revision Number:** 8 NZ  
**Supersedes:** July 30, 2020  
**Other:** New Zealand (NZ)  
**Indication of Changes:** No changes.

Written in accordance with the provisions of OSHA 1910.1200 App D (2012) and Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 including New Zealand specific information. (GHS format)D (2012) and Canada HPR (SOR/2015-17) (WHMIS 2015). (GHS format)

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.