KIMBALL MIDWEST
Specializing in Materials Management

Safety Data Sheet (SDS)

Revision Date: 7/7/16

1 IDENTIFICATION

Supplier: Kimball Midwest
4800 Roberts Road
Columbus, OH 43228

Contact:	Kimball Midwest
Phone:	800-233-1294
Product Number:	80-724
Product Name:	Circ-Kleen 2 Non-Ozone Depleting Electronic Contact & Circuitry Cleaner
Revision Date:	7/7/2016
Version:	1
CAS Number:	Mixture
Product Use:	Electronic Cleaner
Emergency Phone:	Chemtrec 800-424-9300

2 HAZARDS IDENTIFICATION

GHS Signal Word: Danger

GHS Label Elements:

GHS Classifications: **Health:**
Serious Eye Damage/Eye Irritation, Category 2B
Physical:
Flammable Aerosols, Category 1
Gases under pressure. Compressed gas.

Hazard Statements:
Extremely flammable aerosol.
Causes eye irritation.
Contains gas under pressure; may explode if heated.

Precautionary Statements:
Wear eye or face protection. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Wash hands thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical attention.
Protect from sunlight.
Protect from sunlight and store in well-ventilated place. Do not expose to temperatures exceeding 50 °C/122 °F.

3	COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients

CAS #	Percentage	Chemical Name
110-54-3	≥50-<75%	n-hexane

4	FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Acute and Delayed Symptoms/Effects

Eyes: Causes eye irritation.

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact: Defatting to the skin.

Ingestion: May be irritating to mouth, throat and stomach.

Over Exposure Signs/Symptoms

Eyes: Adverse symptoms may include the following: irritation, watering, redness.

Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing.

Skin contact: Adverse symptoms may include the following: pain or irritation, redness, cracking, dryness.

Ingestion: Adverse symptoms may include the following: Irritating to mouth, throat and stomach; nausea or vomiting.

Indication of Immediate Medical Attention/Special Treatment

Notes to Physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific Treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

5 FIRE FIGHTING MEASURES

Extinguishing Media: Use an extinguishing agent suitable for the surrounding fire.

Specific Hazards: Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous Decomposition: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, halogenated compounds, carbonyl halides

Special Protective Actions: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special Equipment: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 ACCIDENTAL RELEASE MEASURES

For Non-Emergency Personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from
entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No

flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For Emergency Responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Clean-Up Methods

Small Spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Reference to other sections:
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on proper disposal.

7 HANDLING AND STORAGE

Handling Precautions: Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be

hazardous. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Storage Requirements: Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient	Exposure Limits
n-hexane	**ACGIH TLV (United States, 3/2015).** **Absorbed through skin.** TWA: 50 ppm 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 180 mg/m³ 10 hours. TWA: 50 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 1800 mg/m³ 8 hours. TWA: 500 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 180 mg/m³ 8 hours. TWA: 50 ppm 8 hours.

Engineering Controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual Protection Measures

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
Appropriate techniques should be used to remove potentially contaminated clothing.
Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face Protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
Hand Protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other Skin Protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

9	PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear		Odor	Characteristic
Physical State	Liquid		Molecular Formula	Mixture
Odor Threshold	DNA		Solubility	DNA
Particle Size	DNA		Softening Point	DNA
Spec Grav/Density	0.669		Percent Volatile	DNA
Viscosity	DNA		Heat Value	DNA
Sat. Vap Cone	DNA		Freezing/Melting Point	DNA
Boiling Point	DNA		Flash Point	DNA
Flammability	1.1% Lower, 7.5% Upper		Octanol	DNA
Partition Coefficient	DNA		Vapor Density	DNA
Vapor Pressure	DNA		VOC	DNA
pH	DNA		Bulk Density	DNA
Evap rate	DNA		Auto-Ignition Temp	DNA

Molecular Weight	DNA		UFL/LFL	DNA
Decomp Temp	DNA			

10 STABILITY AND REACTIVITY

Reactivity: No specific test data related to reactivity available for this product or its ingredients.
Chemical Stability: The product is stable.

Hazardous Reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to Avoid: Avoid all possible sources of ignition (spark or flame).

Incompatible Materials: Reactive or incompatible with the following materials: Elevated temperature Strong oxidizer.

Hazardous Decomposition Products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 TOXICOLOGICAL INFORMATION

Acute Toxicity: n-hexane, LC50 Inhalation and LC50 Oral in Rats, 48000 ppm/15840 mg/kg, four hours.
Irritation/Corrosion: n-hexane, mild eye irritant in Rabbits, 10 mg.
Sensitization: Not Available.
Mutagenicity: Not Available.
Carcinogenicity: Not Available.
Reproductive Toxicity: Not Available.
Teratogenicity: Not Available.
Specific Target Organ Toxicity (single exposure): Not Available.
Specific Target Organ Toxicity (repeated exposure): Not Available.
Aspiration Hazard: Not Available.

Potential Acute Health Effects

Eye Contact: Irritation, watering, redness.
Inhalation: Respiratory tract irritation, coughing.
Skin Contact: Pain or irritation, redness, cracking, dryness
Ingestion: Irritating to mouth, throat and stomach; nausea or vomiting.

Delayed and Immediate Effects/Chronic Effects

Potential Immediate Effects: Not Available.
Potential Delayed Effects: Not Available.
Potential Chronic Effects: Not Available.
Numerical Measures of Toxicity: Not Available.

12 ECOLOGICAL INFORMATION

Toxicity: n-hexane, acute LC50 113000 µg/L in fresh water Oreochromis mossambicus, 96 hours.
Persistence and Degradability: Not Available.
Bio-accumulative Potential: n-hexane, high potential.
Mobility in Soil: Not Available.
Other Adverse Effects: No known significant effects or critical hazards.

13 DISPOSAL CONSIDERATIONS

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Disposal
of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

14 TRANSPORT

	DOT	TDG	Mexico	ADR/RID	IMDG	IATA
UN #	-	-	-	UN1950	UN1950	UN1950
UN Shipping Name	Consumer commodity ORM-D	Consumer commodity ORM-D	Consumer commodity ORM-D	AEROSOLS	AEROSOLS	Aerosols, flammable
Transport Hazard Classes	ORM-D	ORM-D	ORM-D	2 	2.1 	2.1 
Packing Group	-	-	-	-	-	-
Environmental Hazard	Yes	No	No	Yes	No	No
Additional Info	Use ORM-D Label **Reportable quantity** 7142.9 lbs / 3242.9 kg [1280.5 gal / 4847.3 L] Package sizes	Product classified as per the following sections of the Transportation of Dangerous	-	The environmentally hazardous substance mark is not required when transported in	-	The environmentally hazardous substance mark may appear if required by other

	shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	Goods Regulations: 2. 13-2.17 (Class 2).		sizes of ≤5 L or ≤5 kg. **Tunnel code** (D)		transportation regulations.

Special Precautions for User: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not Available.

15 REGULATORY INFORMATION

U.S. Federal Regulations: TSCA 8(a) CDR Exempt/Partial Exemption: Not Determined
United States Inventory (TSCA 8b): All components are listed or exempted.
Clean Air Act (CAA) 112 regulated flammable substances: 1, 1-difluoroethane.

Clean Air Act Section 112(b) Hazardous Air Pollutants: Listed
Clean Air Act Section 602 Class I Substances: Not Listed
Clean Air Act Section 602 Class II Substances: Not Listed
DEA List I Chemicals (Precursor Chemicals): Not Listed
DEA List II Chemicals (Essential Chemicals): Not Listed

SARA 302/304

Composition/Information on Ingredients: No products were found.

SARA 304 RQ: N/A
SARA 311/312: Fire Hazard, Immediate (acute) health hazard

Composition/Information on Ingredients

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) Health Hazard	Delayed (chronic) Health Hazard
n-hexane	≥50-<75	Yes	No	No	Yes	No

SARA 313

	Product Name	CAS #	%
Form R – Reporting Requirements	n-hexane	110-54-3	≥50-<75
Supplier Notification	n-hexane	110-54-3	≥50-<75

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State Regulations:

MA: The following components are listed: HEXANE; N-HEXANE; DIFLUOROETHANE

NY: The following components are listed: Hexane

NJ: The following components are listed: n-HEXANE; HEXANE; 1,1-DIFLUOROETHANE; ETHANE, 1,1-DIFLUORO

PA: The following components are listed: HEXANE

16 OTHER INFORMATION

Disclaimer:

The listed supplier cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.