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Version 1.03

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** 80-474 BATTERY TERMINAL PROTECTOR**Recommended use of the chemical and restrictions on use****Product code** F00499**Product Type** Extremely flammable aerosol
Synonyms None**Supplier's details****Recommended Use** Battery Terminal Protector.
Uses advised against No information available**Manufactured For:**
Kimball Midwest
4800 Roberts Rd.
Columbus, OH 43228**Emergency telephone number**
Chemical Emergency Phone Number Chemtrec 1-800-424-9300
Company Emergency Phone Number 800-233-1294

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None

Other information

• Toxic to aquatic life with long lasting effects

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS # 110-54-3, HEXANE, MAY BE SUBSTITUTED FOR CAS # 64742-49-0, COMMERCIAL HEXANES.

Chemical Name	CAS-No	Weight %*
HEXANE	110-54-3	50-60
PROPANE/ISOBUTANE/N-BUTANE	68476-86-8	20-30
NAPHTHENIC OIL, SEVERELY HYDROT	64742-52-5	10-20
HYDROTREATED HEAVY NAPHTHENIC	64742-48-9	1-10
PETROLEUM DISTILLATES	8052-41-3	1-10

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Avoid contact with eyes, and clothing. Avoid breathing, vapors, mist, or gas.
Eye contact	In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice.
Skin contact	Wash off immediately with plenty of water. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. If breathing has stopped, contact emergency medical services immediately.
Ingestion	Do NOT induce vomiting. Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person. Risk of product entering the lungs on vomiting after ingestion.

Most important symptoms/effects, acute and delayed

Main Symptoms May cause skin irritation. Drowsiness. Dizziness. Difficulty breathing.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

water fog. Dry chemical. Foam. Carbon dioxide (CO2). Cool containers / tanks with water spray.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Flammable or extremely flammable aerosol. Container may burst in fire.

Explosion Data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge Yes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use shielding to protect fire-fighters from bursting containers.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautions Report spills as required by local and federal regulations.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain liquid and collect with an inert, non-combustible material.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling Avoid contact with eyes. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can. Avoid skin contact. Use with adequate ventilation. Keep container away from heat, flames, and all other sources of ignition. Keep can away from all sources of electricity such as electric motors and batteries. Do not spray on hot surfaces.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products Store away from strong oxidizers and acids.

Aerosol Level 3

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
HEXANE 110-54-3	TWA: 50 ppm Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 500 ppm TWA: 1800 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 180 mg/m ³	IDLH: 1100 ppm TWA: 50 ppm TWA: 180 mg/m ³
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	74-98-6: TWA: 1000 ppm 106-97-8: STEL: 1000 ppm 75-28-5: STEL: 1000 ppm	74-98-6:TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³ 106-97-8: (vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m ³	74-98-6:IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³ 106-97-8:TWA: 800 ppm TWA: 1900 mg/m ³ 75-28-5:TWA: 800 ppm TWA: 1900 mg/m ³
PETROLEUM DISTILLATES 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m ³	IDLH: 20000 mg/m ³ Ceiling: 1800 mg/m ³ 15 min TWA: 350 mg/m ³

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Exposure controls

Engineering Measures

Ventilation systems. Use adequate ventilation to keep the exposure levels below the OELs.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Safety glasses with side-shields.

Skin and body protection

Chemical resistant apron. Protective gloves.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state

Aerosol

Appearance

opaque

Color

red

Odor

Solvent

Odor Threshold

No information available

Property

Values

Remarks • Methods

pH

No information available

Melting/freezing point

No information available

Boiling point/boiling range

No information available

Flash Point

-96.4 °C / -141 °F

Based on propellant

Evaporation rate

No information available

Flammability (solid, gas)

No information available

Flammability Limits in Air

upper flammability limit

No information available

lower flammability limit

No information available

Vapor pressure

No information available

Vapor density

No information available

Specific Gravity	0.718	
Water solubility	Practically insoluble	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	Not applicable
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	

Other information

VOC Content(%) 73.57

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Store away from strong oxidizers and acids.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known information
Inhalation	Exposure to high vapour concentrations may cause nervous systems effects such as headache, nausea, and dizziness.
Eye contact	May cause slight irritation.
Skin contact	Irritating to skin. Prolonged or repeated exposure may cause dermatitis.
Ingestion	Not acutely toxic. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
HEXANE 110-54-3	-	= 3000 mg/kg (Rabbit)	= 48000 ppm (Rat) 4 h
HYDROTREATED HEAVY NAPHTHENIC 64742-48-9	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea, and vomiting. May cause mild irritation. Irritating to skin. Prolonged or repeated exposure may cause dermatitis. Not acutely toxic. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Irritating to skin.
Eye damage/irritation	Irritating to eyes.
Sensitization	No information available.
Germ Cell Mutagenicity	No information available.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ systemic toxicity (single exposure)	causes damage to central nervous system and respiratory system.
Specific target organ systemic toxicity (repeated exposure)	Causes damage to organs through prolonged or repeated exposure.
Chronic toxicity	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Prolonged skin contact may defat the skin and produce dermatitis.
Target Organ Effects	Central nervous system, Eyes, Kidney, Peripheral Nervous System (PNS), Respiratory system, Skin.
Aspiration hazard	May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity	0% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .	
ATEmix (oral)	11122 mg/kg
ATEmix (dermal)	6667 mg/kg
ATEmix (inhalation-vapor)	106667 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
HEXANE 110-54-3	-	2.1 - 2.98 mg/L LC50 Pimephales promelas 96h flow-through	-	-
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	-	-	-	-
NAPHTHENIC OIL, SEVERELY HYDROT 64742-52-5	-	5000 mg/L LC50 Oncorhynchus mykiss 96h	-	1000 mg/L EC50 Daphnia magna 48h
HYDROTREATED HEAVY NAPHTHENIC 64742-48-9	-	2200 mg/L LC50 Pimephales promelas 96h	-	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	log Pow
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	2.8

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment**

Waste Disposal Methods Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Ground CONSUMER COMMODITY ORM-D

IATA UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD. QTY.

IMDG UN1950, AEROSOLS, 2.1, LTD. QTY.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
HEXANE	X	X	X	X	X	X	X	X
PROPANE/ISOBUTANE/N-BUTANE	X	X	X	Not listed	X	X	X	X
NAPHTHENIC OIL, SEVERELY HYDROT	X	X	X	X	X	X	X	X
HYDROTREATED HEAVY NAPHTHENIC	X	X	X	X	X	X	X	X
PETROLEUM DISTILLATES	X	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %*	SARA 313 - Threshold Values %
HEXANE - 110-54-3	110-54-3	50-60	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
HEXANE 110-54-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations**California Proposition 65**

This product does not contain any known Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
HEXANE 110-54-3	X	X	X
PETROLEUM DISTILLATES 8052-41-3	X	X	X

EPA Pesticide Registration Number Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 4	Instability 0	Physical and chemical hazards -
HMIS	Health Hazard 2	Flammability 4	Physical Hazard 1	Personal protection B

Prepared By Regulatory Affairs

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Revision Note

No information available

Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Safety Data Sheet