

SAFETY DATA SHEET

Creation Date 06-November-2009

Revision Date 19-December-2025

Revision Number 9

This safety data sheet was created pursuant to the requirements of: Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) - SOR 2022-272

1. Identification

Product Name Petroleum ether, boiling range 40-60°C

Cat No.: AC326720000; AC326720010; AC326720025

Acros Organics

One Reagent Lane

Fair Lawn, NJ 07410

64742-49-0 CAS-No **Synonyms** Ligroine

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Importer/Distributor

Fisher Scientific 112 Colonnade Road, Ottawa, ON K2E 7L6,

Canada

Tel: 1-800-234-7437

Manufacturer

Fisher Scientific Company One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 CHEMTREC Tel. No. US:001-800-424-9300 / Europe:001-703-527-3887

2. Hazard(s) identification

Classification

WHMIS 2015 Classification

This product is hazardous in accordance with the Canada Hazardous Products Act (HPA)

and Hazardous Products Regulation (HPR), as amended (SOR/2022-272)

Flammable liquids Category 2 Category 2 Skin Corrosion/Irritation Serious Eye Damage/Eye Irritation Category 2 Specific target organ toxicity (single exposure) Category 3 Target Organs - Central nervous system (CNS).

Aspiration Toxicity Category 1

Label Elements

Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapor Causes serious eye irritation May cause drowsiness and dizziness May be fatal if swallowed and enters airways Causes skin irritation



Precautionary Statements

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Keep container tightly closed

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Ground and bond container and receiving equipment

Use explosion-proof electrical/ventilating/lighting/equipment

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Use non-sparking tools

Take action to prevent static discharges

Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

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

Do NOT induce vomiting

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Take off contaminated clothing and wash it before reuse

Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Toxic to aquatic life with long lasting effects

3. Composition/Information on Ingredients

Component	CAS-No	Weight %	
Naphtha, petroleum, hydrotreated light	64742-49-0	<100	
Hexane	110-54-3	-	

4. First-aid measures

General Advice If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists,

call a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if

symptoms occur. Risk of serious damage to the lungs (by aspiration).

Ingestion Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call

a physician or poison control center immediately. If vomiting occurs naturally, have victim

lean forward.

Most important symptoms/effects Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like

headache, dizziness, tiredness, nausea and vomiting: Symptoms of overexposure may be

headache, dizziness, tiredness, nausea and vomiting

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media CO₂, dry chemical, dry sand, alcohol-resistant foam. Water mist may be used to cool

closed containers.

Unsuitable Extinguishing Media Water may be ineffective, Do not use a solid water stream as it may scatter and spread fire

Flash Point -45 °C / -49 °F

Method - No information available

Autoignition Temperature 230 °C / 446 °F

Explosion Limits

Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO2).

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.

NFPA

HealthFlammabilityInstabilityPhysical hazards330N/A

6. Accidental release measures

Personal Precautions Use personal protective equipment as required. Ensure adequate ventilation. Remove all

sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. **Up**Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7. Handling and storage

Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

Storage.

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area. Incompatible Materials. Strong oxidizing agents.

8. Exposure controls / personal protection

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.

Component	Alberta	British Columbia	Ontario TWAEV	Quebec
Hexane	TWA: 50 ppm	TWA: 20 ppm	TWA: 50 ppm	TWA: 50 ppm
	TWA: 176 mg/m ³	Skin	Skin	TWA: 176 mg/m ³
	Skin			Skin

Component	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
Hexane	TWA: 50 ppm	TWA: 50 ppm	TWA: 50 ppm	TWA: 50 ppm
	Skin	Skin	Skin	Skin

Component	Nunavut	Prince Edward Island	Saskatchewan	Yukon
Hexane	TWA: 50 ppm STEL: 62.5 ppm Skin	TWA: 50 ppm	TWA: 50 ppm STEL: 62.5 ppm Skin	TWA: 100 ppm TWA: 360 mg/m³ STEL: 125 ppm STEL: 450 mg/m³

Component	ACGIH TLV	OSHA PEL	NIOSH
Hexane	TWA: 50 ppm	(Vacated) TWA: 50 ppm	IDLH: 1100 ppm
110-54-3 (-)	Skin	(Vacated) TWA: 180 mg/m ³	REL = 50 ppm (TWA)
		TWA: 500 ppm	REL = $180 \text{ mg/m}^3 \text{ (TWA)}$
		TWA: 1800 mg/m ³	, ,

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control

hazardous materials at source

Personal protective equipment

Eye Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Hand Protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Glove material	Breakthrough time	Glove thickness	Glove comments
Nitrile rubber	See manufacturers	-	Splash protection only
Viton (R)	recommendations		

Inspect gloves before use, observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, gloves with care avoiding skin contamination.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly Recommended Filter type: low boiling organic solvent Type AX Brown conforming to EN371

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Explosion Limits

Liquid **Physical State** Colorless Color

Odor Petroleum distillates **Odor Threshold** No information available

Values Property Remarks Method

Melting Point/Range No data available **Softening Point** No data available

40 - 70 °C / 104 - 158 °F **Boiling Point/Range**

-45 °C / -49 °F Method - No information available Flash Point

Flammability (liquid) Highly flammable On basis of test data

Flammability (solid,gas) Not applicable Liquid Lower 1 vol%

Upper 7.4 vol% 230 °C / 446 °F **Autoignition Temperature** No data available **Decomposition Temperature** рΗ No information available

Viscosity 0.45 mm2/s at 25 °C (ASTM D445)

Water Solubility Insoluble

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Component log Pow Hexane 4.11

250 hPa @ 250 °C **Vapor Pressure**

Density / Specific Gravity 0.65

Bulk Density Not applicable Liquid **Vapor Density** >1 @ 101 kPa (Air = 1.0)

Particle characteristics (liquid) Not applicable

Other Information

Explosive Properties Vapors may form explosive mixtures with air

Evaporation Rate 13 (Butyl acetate = 1.0)

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products. Excess heat. Keep away from open flames, hot surfaces and

sources of ignition.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO2)

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Information on expected route of exposure

Inhalation Avoid breathing vapors or mists.

Ingestion May be harmful if swallowed. Potential for aspiration if swallowed. Harmful if swallowed.

Eyes Avoid contact with eyes. May cause irritation.

Skin Avoid contact with skin. May cause irritation. Prolonged skin contact may defat the skin and

produce dermatitis.

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation		
Naphtha, petroleum, hydrotreated light	LD50 > 5000 mg/kg (Rat)	LD50 > 3160 mg/kg (Rabbit)	LC50 = 73680 ppm (Rat) 4 h		
Hexane	LD50 = 25 g/kg (Rat)	LD50 = 3000 mg/kg (Rabbit)	LC50 = 48000 ppm (Rat) 4 h		

Toxicologically Synergistic

Products

No information available

(b) skin corrosion/irritation; Category 2

(c) serious eye damage/irritation; Based on available data, the classification criteria are not met

(d) respiratory or skin sensitization;

RespiratoryBased on available data, the classification criteria are not met
Skin
Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met

The table below indicates whether each agency has listed any ingredient as a carcinogen. The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen. This note

applies only to certain complex oil derived substances in Annex I

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Naphtha, petroleum,	64742-49-0	Not listed				
hydrotreated light						

Petroleum ether, boiling range 40-60°C

| Hexane | 110-54-3 | Not listed |
|--------|----------|------------|------------|------------|------------|------------|

Based on available data, the classification criteria are not met (g) reproductive toxicity;

California Proposition 65. Product is or contains a chemical which is a known or suspected **Reproductive Effects**

reproductive hazard.

(h) STOT-single exposure; Category 3

Central nervous system (CNS). Results / Target organs

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

Target Organs None known.

(j) aspiration hazard; Category 1

delayed

Symptoms / effects, both acute and Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Symptoms of overexposure may be headache, dizziness,

tiredness, nausea and vomiting.

Other Adverse Effects The toxicological properties have not been fully investigated.

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

The product contains following substances which are hazardous for the environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Naphtha, petroleum, hydrotreated light	Not listed	LC50: = 8.41 mg/L, 96h semi-static, closed (Oncorhynchus mykiss)	Not listed	Not listed
Hexane	Not listed	LC50: 2.1 - 2.98 mg/L, 96h flow-through (Pimephales promelas)	Not listed	EC50: 3.87 mg/L/48h

Persistence and Degradability Persistence is unlikely based on information available.

No information available. **Bioaccumulation/ Accumulation**

Mobility Will likely be mobile in the environment due to its volatility.

Component	log Pow
Hexane	4.11

13. Disposal considerations

Chemical waste generators must determine whether a discarded chemical is classified as a **Waste Disposal Methods**

hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN1268

Proper Shipping Name Petroleum distillates, n.o.s.

Hazard Class 3
Packing Group ||

<u>TDG</u>

UN-No UN1268

Proper Shipping Name Petroleum distillates, n.o.s.

Hazard Class 3
Packing Group II

<u>IATA</u>

UN-No UN1268

Proper Shipping Name Petroleum distillates, n.o.s.

Hazard Class 3 Packing Group II

IMDG/IMO

UN-No UN1268

Proper Shipping Name Petroleum distillates, n.o.s.

Hazard Class 3
Packing Group | |

15. Regulatory information

International Inventories

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
Naphtha, petroleum, hydrotreated light	64742-49-0	Х	-	Х	ACTIVE	265-151-9	-	-
Hexane	110-54-3	Х	-	Х	ACTIVE	203-777-6	438-390-3	-

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
Naphtha, petroleum, hydrotreated	64742-49-0	Х	KE-25623	-	-	Х	X	Х	Х
light									
Hexane	110-54-3	Х	KE-18626	X	X	X	X	Х	Х

Legend:

X - Listed '-' - Not listed

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

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

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

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

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and its amendments and meets the requirements of the HPR (Paragraph 13(1)(a) of the revised Hazardous Products Act (HPA)).

Component	Canada - National Pollutant Release Inventory (NPRI)	Canadian Environmental Protection Agency (CEPA) - List of Toxic Substances	Canada's Chemicals Management Plan (CEPA)
Hexane	Part 1, Group A Substance		Subject to Monitoring and
	Part 5, Individual Substances Part 4		Surveillance Activities
	Substance		

Other International Regulations

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Naphtha, petroleum, hydrotreated light	-	Use restricted. See entry 28. (see link for restriction details) Use restricted. See entry 29. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details)	-
Hexane	-	Use restricted. See entry 75. (see link for restriction details)	-

REACH links

https://echa.europa.eu/substances-restricted-under-reach

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

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

	Component	CAS-No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
	Naphtha, petroleum, hydrotreated light	64742-49-0	Listed	Not applicable	Not applicable	Not applicable
Г	Hexane	110-54-3	Listed	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Naphtha, petroleum, hydrotreated light	64742-49-0	2500 tonne	25000 tonne	Not applicable	Not applicable
Hexane	110-54-3	Not applicable	Not applicable	Not applicable	Annex I - Y42

16. Other information

Prepared By Product stewardship (Regulatory Affairs)

Thermo Fisher Scientific

email - begel.sdsdesk@thermofisher.com

Creation Date06-November-2009Revision Date19-December-2025Print Date19-December-2025

Revision Summary This document has been updated to comply with the requirements of WHMIS 2015 which

includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) to align with the Globally Harmonised System (GHS) (V7/8) for the

Classification and Labelling of Chemicals.

Disclaimer

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

End of SDS