SAFETY DATA SHEET

ROYCO 950 MIL-PRF-7024 TYPE II

Version	Revision Date:	SDS Number:	Date of last issue: 06/14/2022
4.0	09/21/2022	215000008779	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : ROYCO 950 MIL-PRF-7024 TYPE II

Product code : 000000000062496122

Manufacturer or supplier's details

Company : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, Pennsylvania 15275-1112

Responsible Department : (800) LANXESS
(412) 809-1000
lanxesshes@lanxess.com

Emergency telephone : CHEMTREC (800) 424-9300 or
(703) 527-3887 (Outside U.S.A) and mention CCN12916.
Lanxess Emergency Phone (800) 410-3063.

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 3

Skin irritation : Category 2

Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

Aspiration hazard : Category 1

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness or dizziness.

Precautionary Statements :

Prevention:

Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing mist or vapors.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ eye protection/ face protection.

Response:

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel un-well.
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

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

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Petroleum distillates

Components

Chemical name	CAS-No.	Concentration (% w/w)
Naphtha (petroleum), hydrotreated heavy	64742-48-9	>= 50 - < 70
Distillates (petroleum), hydrotreated light	64742-47-8	>= 50 - < 70
nonane	111-84-2	>= 1 - < 5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

If inhaled : Get medical attention immediately.
Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If unconscious, place in recovery position and get medical attention immediately.
Maintain open airway.
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

In case of skin contact : Wash off with soap and water.
Remove contaminated clothing and shoes.
Continue to rinse for at least 20 minutes.
Get medical attention if symptoms occur.
Wash contaminated clothing before reuse.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Get medical attention if symptoms appear.

If swallowed : Get medical attention immediately.
Rinse mouth with water.
If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.
Aspiration hazard if swallowed - can enter lungs and cause damage.
If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
If unconscious, place in recovery position and get medical attention immediately.

Maintain open airway.
Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed

Symptoms	:	Skin: Causes irritation with symptoms of reddening, itching, and swelling. May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Acute overexposure to this product may cause dizziness, headache, drowsiness, malaise, abdominal pain. Ingestion and/or vomiting may cause aspiration into the lungs resulting in chemical pneumonitis (inflammation of the lungs).
Effects	:	May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection and use the recommended protective clothing If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Toxic and irritating gases/fumes may be given off during burning or thermal decomposition. Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Hazardous combustion products Carbon dioxide (CO2) Carbon monoxide
Further information	:	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. Use a water spray to cool fully closed containers. Move containers from fire if this can be done without risk. Fight fire remotely due to the risk of explosion.

If this is impossible, withdraw from area and allow fire to burn.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : No action shall be taken involving any personal risk or without suitable training.
Put on appropriate personal protection equipment.
Do not touch or walk through spilled material.
Evacuate unnecessary personnel.
Keep unnecessary and unprotected personnel from entering.
Provide adequate ventilation.
Do not breathe vapors, aerosols.
Remove all sources of ignition.
Forms slippery/greasy layers with water.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Stop leak if safe to do so.
Move containers from spill area.
Wash spillages into an effluent treatment plant or proceed as follows.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Dispose of wastes in an approved waste disposal facility.
Do not allow into the sewerage system, surface waters or groundwater or into the soil.
Contaminated absorbent material may pose the same hazard as the spilled product.
Non-sparking tools should be used.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Remove contaminated clothing and protective equipment before entering eating areas.
Workers should wash hands and face before eating, drinking and smoking.
Put on appropriate personal protection equipment.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Avoid inhalation, ingestion and contact with skin and eyes.
Use only with adequate ventilation/personal protection.

Conditions for safe storage : Store in accordance with local regulations.
Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink.
Keep container closed when not in use.
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Do not store in unlabeled containers.
Use appropriate container to avoid environmental contamination.
Empty containers retain residue and can be dangerous.
Do not reuse container.

Further information on storage stability : Stable under recommended storage conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Naphtha (petroleum), hydrotreated heavy	64742-48-9	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
Distillates (petroleum), hydrotreated light	64742-47-8	TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
nonane	111-84-2	TWA	200 ppm	ACGIH

Engineering measures : If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Use explosion-proof ventilating equipment.

Personal protective equipment

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
NIOSH approved, air-purifying organic vapor respirator.

Hand protection
Material : Neoprene gloves
Wearing time : < 60 min

Material : Nitrile rubber

Remarks	:	Solvent-resistant gloves Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Safety glasses with side-shields
Skin and body protection	:	Impervious clothing Chemical resistant apron Choose body protection according to the amount and concentration of the dangerous substance at the work place.
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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Color	:	clear
Odor	:	hydrocarbon-like
Odor Threshold	:	No data available
pH	:	substance/mixture is non-soluble (in water)
Melting point/range	:	Not applicable
Boiling point/boiling range	:	No data available
Flash point	:	105.1 °F / 40.6 °C Method: Tag closed cup
Evaporation rate	:	0.259 (Butyl Acetate=1.0)
Self-ignition	:	No data available

Burning number	:	No data available
Upper explosion limit / Upper flammability limit	:	6 %(V) Information taken from reference works and the literature.
Lower explosion limit / Lower flammability limit	:	0.7 %(V) Information taken from reference works and the literature.
Vapor pressure	:	No data available
Relative vapor density	:	4.8 No data available
Relative density	:	0.77 (60.1 °F / 15.6 °C)
Density	:	0.76 g/cm3 (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	negligible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	log Pow: > 3
Ignition temperature	:	not determined
Decomposition temperature	:	No data available
Self-Accelerating decomposition temperature (SADT)	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	1.17 mm2/s (77 °F / 25 °C)
Explosive properties	:	No data available
Oxidizing properties	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	The product is chemically stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid	:	Heat.
Incompatible materials	:	Strong acids and strong bases
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

The most important known symptoms and effects are described in Section 2 and/or Section 4.

Information on likely routes of exposure

Inhalation
Eye contact
Skin contact

Acute toxicity

Not classified based on available information.

Product:

Acute dermal toxicity	:	Acute toxicity estimate: 4,545 mg/kg Method: Calculation method

Components:

Naphtha (petroleum), hydrotreated heavy:

Acute oral toxicity	:	LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 401 GLP: yes Remarks: In analogy to test results for similarly composed products.
Acute inhalation toxicity	:	LC50 (Rat, male and female): > 4.951 mg/l Exposure time: 4 h Test atmosphere: vapor Method: OECD Test Guideline 403 GLP: yes Assessment: The substance or mixture has no acute inhalation toxicity Remarks: Highest producible concentration. Remarks: Dosage caused no mortality Remarks: In analogy to test results for similarly composed products.
Acute dermal toxicity	:	LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402 GLP: yes

Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Dosage caused no mortality

Remarks: In analogy to test results for similarly composed products.

Distillates (petroleum), hydrotreated light:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg Remarks: Extrapolation according to Regulation (EC) No. 440/2008
Acute dermal toxicity	:	LD50 (Rabbit, male and female): > 5,000 mg/kg Remarks: Extrapolation according to Regulation (EC) No. 440/2008

nonane:

Acute oral toxicity	:	LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 401 GLP: yes Remarks: Based on data from similar materials
Acute inhalation toxicity	:	LC50 (Rat, male): 23.76 mg/l Exposure time: 8 h Test atmosphere: vapor
Acute dermal toxicity	:	LD50 (Rabbit, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402 GLP: yes Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on data from similar materials Dosage caused no mortality

Skin corrosion/irritation

Causes skin irritation.

Product:

Result	:	Irritating to skin.

Components:

Naphtha (petroleum), hydrotreated heavy:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
GLP	:	yes
Remarks	:	In analogy to test results for similarly composed products.

Result : Repeated exposure may cause skin dryness or cracking.

Distillates (petroleum), hydrotreated light:

Species : Rabbit
Result : No skin irritation

Result : Repeated exposure may cause skin dryness or cracking.

nonane:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Skin irritation
Remarks : Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Naphtha (petroleum), hydrotreated heavy:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
GLP : yes
Remarks : Information given is based on data obtained from similar substances.

Distillates (petroleum), hydrotreated light:

Species : Rabbit
Result : No eye irritation

nonane:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
Remarks : Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Components:

Naphtha (petroleum), hydrotreated heavy:

Test Type	:	Maximization Test
Routes of exposure	:	Intradermal
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Not a skin sensitizer.
GLP	:	no
Remarks	:	In analogy to test results for similarly composed products.

Distillates (petroleum), hydrotreated light:

Routes of exposure	:	Dermal
Species	:	Guinea pig
Result	:	Does not cause skin sensitization.

nonane:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Not a skin sensitizer.
Remarks	:	Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.

Components:

Naphtha (petroleum), hydrotreated heavy:

Genotoxicity in vitro : Test system: Bacteria
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: Test results on an analogous product

Test Type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes
Remarks: Test results on an analogous product

Test Type: gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476

Result: negative
GLP: yes
Remarks: Test results on an analogous product

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Application Route: Oral
Dose: 1,25 - 2,5 - 5,0 g/kg/bw
Method: OECD Test Guideline 474
Result: negative
GLP: no
Remarks: In analogy to test results for similarly composed products.

Test Type: Chromosomal aberration assay
Species: Rat (male)
Application Route: inhalation (vapor)
Dose: 300 - 900 ppm
Method: OECD Test Guideline 478
Result: negative
GLP: no
Remarks: In analogy to test results for similarly composed products.

Test Type: Micronucleus test
Species: Mouse (male and female)
Application Route: Oral
Result: negative
Remarks: In analogy to test results for similarly composed products.

nonane:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Carcinogenicity

Not classified based on available information.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

Naphtha (petroleum), hydrotreated heavy:

Effects on fertility : Test Type: Fertility
Species: Rat, male and female
Application Route: inhalation (vapor)
Dose: 0 - 25 - 50- 100 - 200 - 400 parts per million
Duration of Single Treatment: 6 h
Frequency of Treatment: 5 days/week
Fertility: NOAEC F1: >= 400 parts per million
Method: OECD Test Guideline 413
Remarks: In analogy to test results for similarly composed products.

Test Type: Fertility
Species: Rat, male
Application Route: Oral
Dose: 0 - 750 - 1500 - 3000 milligram per kilogram
Frequency of Treatment: 7 days/week
Fertility: NOAEL: >= 3,000 mg/kg bw/day
Method: OECD Test Guideline 415
Remarks: In analogy to test results for similarly composed products.

Test Type: Fertility
Species: Rat, female
Application Route: Oral
Dose: 0 - 325 - 750 - 15000 milligram per kilogram
Frequency of Treatment: 7 days/week
Fertility: NOAEL: >= 1,500 mg/kg bw/day
Method: OECD Test Guideline 415
Remarks: In analogy to test results for similarly composed products.

Effects on fetal development : Species: Rat
Application Route: inhalation (vapor)
Dose: 100 - 300 parts per million
Duration of Single Treatment: 6 h
Frequency of Treatment: 10 daily
Teratogenicity: NOAEC Parent: >= 300 parts per million
Method: No information available.
GLP: no
Remarks: No teratogenic or fetotoxic effects were found at all dose levels tested.

Species: Rat
Application Route: inhalation (vapor)
Dose: 300 - 900 parts per million

Duration of Single Treatment: 6 h
Frequency of Treatment: 10 daily
Teratogenicity: NOAEC Parent: >= 300 parts per million
Developmental Toxicity: NOAEL: >= 5,220 mg/m³
Method: OECD Test Guideline 414
GLP: no

Remarks: Test results on an analogous product

nonane:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: inhalation (vapor)
Frequency of Treatment: 6 hours/day
Fertility: NOAEL: 31,680 mg/m³
Method: OECD Test Guideline 416
GLP: yes
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Pre-natal
Species: Mouse, female
Application Route: inhalation (vapor)
Frequency of Treatment: 6 hours/day
General Toxicity Maternal: NOAEL: 3,168 mg/m³
Developmental Toxicity: NOAEL: 10,560 mg/m³
Method: OECD Test Guideline 414
GLP: yes
Remarks: Based on data from similar materials

Test Type: Pre-natal
Species: Rat, female
Application Route: inhalation (vapor)
Frequency of Treatment: 6 hours/day
General Toxicity Maternal: NOAEL: 10,560 mg/m³
Developmental Toxicity: NOAEL: 31,680 mg/m³
Method: OECD Test Guideline 414
Result: Did not show teratogenic effects in animal experiments.
GLP: yes
Remarks: Based on data from similar materials

STOT-single exposure

May cause drowsiness or dizziness.

Components:

Naphtha (petroleum), hydrotreated heavy:

Assessment : May cause drowsiness or dizziness.

Distillates (petroleum), hydrotreated light:

Assessment	:	May cause drowsiness or dizziness.

nonane:

Assessment	:	May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Naphtha (petroleum), hydrotreated heavy:

Species	:	Rat, male and female
NOAEL	:	3,000 mg/kg
Application Route	:	Oral
Exposure time	:	90 d
Dose	:	0 - 100 - 300 - 1000 ppm
Method	:	OECD Test Guideline 408
Remarks	:	Subchronic toxicity
Remarks	:	In analogy to test results for similarly composed products.

Species	:	Rat, male and female
NOAEL	:	> 104000 mg/m³
Application Route	:	inhalation (vapor)
Exposure time	:	13 weeks
Dose	:	0 - 2600 - 5200 - 10400 mg/m³
Method	:	OECD Test Guideline 413
Remarks	:	Subchronic toxicity
Remarks	:	In analogy to test results for similarly composed products.

Distillates (petroleum), hydrotreated light:

Species	:	Rat, male and female
NOAEC	:	> 5.28 mg/kg
Application Route	:	Inhalation
Test atmosphere	:	dust/mist
Exposure time	:	14d
Remarks	:	No adverse effect has been observed in chronic toxicity tests.

nonane:

Species	:	Rat, female
NOAEL	:	100 mg/kg
Application Route	:	Oral
Exposure time	:	90 d
Number of exposures	:	daily

Method	:	OECD Test Guideline 408
GLP	:	no
Species	:	Mouse, male
NOAEL	:	100 mg/kg
Application Route	:	Oral
Exposure time	:	90 d
Number of exposures	:	daily
Method	:	OECD Test Guideline 408
GLP	:	no
Species	:	Rat, male
NOAEC	:	8.4 mg/l
Application Route	:	Inhalation
Test atmosphere	:	vapor
Exposure time	:	13 Weeks
Number of exposures	:	6 hours/day, 5 days/week
Method	:	OECD Test Guideline 413
GLP	:	yes

Aspiration toxicity

May be fatal if swallowed and enters airways.

Product:

May be fatal if swallowed and enters airways.

Components:

Naphtha (petroleum), hydrotreated heavy:

May be fatal if swallowed and enters airways.

Distillates (petroleum), hydrotreated light:

May be fatal if swallowed and enters airways.

nonane:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks : No data is available on the product itself.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :
Remarks: No data available

Components:

Naphtha (petroleum), hydrotreated heavy:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : LL50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (algae)): > 1,000 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: No information available.
Method: OECD Test Guideline 201
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): 0.23 mg/l
End point: Reproduction
Exposure time: 21 d
Analytical monitoring: No information available.
GLP: no
Remarks: The value is calculated

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

nonane:

Toxicity to fish : LL50 (Fish): 1.125 mg/l
End point: mortality
Exposure time: 96 h
Method: Calculated value

Toxicity to daphnia and other : EL50 (Daphnia magna (Water flea)): 0.2 mg/l

aquatic invertebrates

Exposure time: 48 h
Analytical monitoring: yes
GLP: no

Toxicity to algae/aquatic plants : EL50: 1.098 mg/l
End point: Biomass
Exposure time: 72 h
Method: Calculated value

NOELR: 0.256 mg/l
End point: Biomass
Exposure time: 72 h
Method: Calculated value

Toxicity to microorganisms : EL50 (Tetrahymena pyriformis): > 1,000 mg/l
End point: Growth rate
Exposure time: 48 h
Method: calculated

Persistence and degradability

Product:

Biodegradability : Result: Not readily biodegradable.

Components:

Naphtha (petroleum), hydrotreated heavy:

Biodegradability : aerobic
Inoculum: activated sludge, non-adapted
Result: Readily biodegradable.
Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
GLP: no
Remarks: * In analogy to test results for a similarly composed product.

Distillates (petroleum), hydrotreated light:

Biodegradability : Result: rapidly biodegradable

nonane:

Biodegradability : aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 100 %
Exposure time: 25 d

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

Distillates (petroleum), hydrotreated light:

Partition coefficient: n-octanol/water : log Pow: 6 - 8.2

nonane:

Partition coefficient: n-octanol/water : log Pow: 5.65

Mobility in soil

Components:

nonane:

Distribution among environmental compartments : Koc: 796, log Koc: 2.9
Method: estimated

Other adverse effects

Product:

Additional ecological information : No information on ecology is available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Waste from residues : The generation of waste should be avoided or minimized wherever possible.
This material and its container must be disposed of in a safe way.
Empty containers retain product residue; observe all precautions for product.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 1268
Proper shipping name	:	Petroleum distillates, n.o.s. (SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC)
Class	:	3
Packing group	:	III
Labels	:	3
	:	
Packing instruction (cargo aircraft)	:	366 : 220.00 L
Packing instruction (passenger aircraft)	:	355 : 60.00 L
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 1268
Proper shipping name	:	PETROLEUM DISTILLATES, N.O.S. (SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC)
Class	:	3
Packing group	:	III
Labels	:	3
	:	
EmS Code	:	F-E, S-E
Marine pollutant	:	yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 1268
Proper shipping name	:	Petroleum distillates, n.o.s.
Class	:	3
Packing group	:	III
Labels	:	3
	:	
ERG Code	:	128
Marine pollutant	:	no

Hazard and Handling Notes.

Combustible., Environmentally hazardous substance., Keep separated from foodstuffs

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards	:	Flammable (gases, aerosols, liquids, or solids) Aspiration hazard Skin corrosion or irritation Specific target organ toxicity (single or repeated exposure)
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

nonane	111-84-2	1 - 5

Pennsylvania Right To Know

Naphtha (petroleum), hydrotreated heavy	64742-48-9	50 - 70
Distillates (petroleum), hydrotreated light	64742-47-8	50 - 70
nonane	111-84-2	1 - 5

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

TSCA inventory

TSCA : All substances listed as active on the TSCA inventory

TSCA list

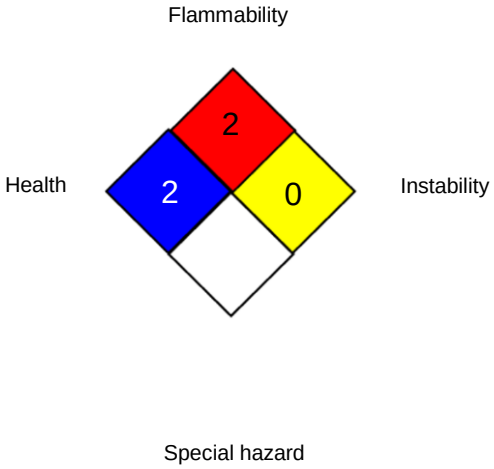
No substances are subject to a Significant New Use Rule.

The following substance(s) is/are subject to TSCA 12(b) export notification requirements:
nonane 111-84-2

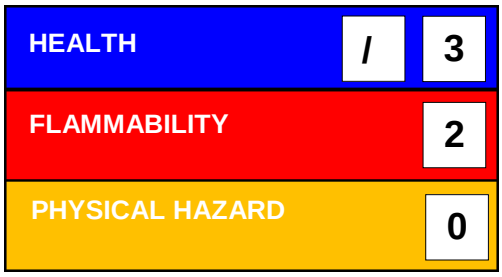
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average

OSHA Z-1 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 09/21/2022

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. 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 to be a guidance for processing and does not contain any 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. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.