

Safety Data Sheet

Arpolsolve 7024 MIL-PRF-7024 Type II Low Odor

Version 1.4

Revision Date: 02/08/2016

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Arpolsolve 7024 MIL-PRF-7024 Type II Low Odor

Recommended use of the chemical and restrictions on use

Recommended use : Calibrating Fluids, Aircraft Fuel System Components

Manufacturer or supplier's details

Company : Nexeo Solutions, LLC.
Address : 3 Waterway Square Place Suite 1000
The Woodlands, TX. 77380
United States of America

Cage Code: : 4N760

NSN : 6850-00-264-5771

Emergency telephone number:

Health North America: 1-855-NEXEO4U (1-855-639-3648)

Health International: 1-855-NEXEO4U (1-855-639-3648)

Transport North America: CHEMTREC (1-800-424-9300)

Additional Information: : Responsible Party: Product Safety Group
E-Mail: msds@nexeosolutions.com
SDS Requests: 1-855-429-2661
SDS Requests Fax: 1-281-500-2370
Website: www.nexeosolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

Skin irritation : Category 2

Eye irritation : Category 2A

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

Aspiration hazard : Category 1

GHS Label element

Hazard pictograms :



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- Signal word : Danger
- Hazard statements : H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
- Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.

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P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Carcinogenicity:

IARC

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

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

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

Emergency Overview

Appearance	liquid
Colour	Clear, Colorless
Odour	Hydrocarbon-like
Hazard Summary	No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical Name	Concentration (%)
64742-47-8	Distillates (pet), hydrotreated light	50 - 70
64742-88-7	Solvent naphtha (pet), med aliph.	30 - 50
111-84-2	Nonane	1 - 5

SECTION 4. FIRST AID MEASURES

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General advice	: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Do not leave the victim unattended.
If inhaled	: Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.
In case of skin contact	: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	: Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	: Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Burning produces irritant fumes. Exposure to decomposition products may be a hazard to health. Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon oxides A complex mixture of airborne solid and liquid particulates and gases (smoke).

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Unidentified organic and inorganic compounds.

Specific extinguishing methods : Use a water spray to cool fully closed containers.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for fire-fighting if necessary.

NFPA Flammable and Combustible Liquids Classification:

Combustible Liquid Class II

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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 : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.

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For personal protection see section 8.
 Smoking, eating and drinking should be prohibited in the application area.
 Take precautionary measures against static discharges.
 Provide sufficient air exchange and/or exhaust in work rooms.
 Open drum carefully as content may be under pressure.
 Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : No smoking.
 Keep container tightly closed in a dry and well-ventilated place.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Observe label precautions.
 Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
64742-47-8	Distillates (pet), hydrotreated light	TWA	500 ppm 2,000 mg/m ³	OSHA Z-1
		TWA	200 mg/m ³ (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m ³	OSHA P0
64742-88-7	Solvent naphtha (pet), med aliph.	TWA	500 ppm 2,000 mg/m ³	OSHA Z-1
		TWA	200 mg/m ³ (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m ³	OSHA P0
111-84-2	Nonane	TWA	200 ppm	ACGIH
		TWA	200 ppm 1,050 mg/m ³	NIOSH REL
		TWA	200 ppm	OSHA P0

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		1,050 mg/m3	
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Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
In the case of vapour formation use a respirator with an approved filter.
- Hand protection
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : Clear, Colorless
- Odour : Hydrocarbon-like
- Odour Threshold : No data available
- pH : No data available
- Freezing Point : No data available
- Boiling Point (Boiling point/boiling range) : 154 °C (309 °F)
- Flash point : 40.6 °C (105.1 °F)
- Evaporation rate : No data available

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Flammability (solid, gas)	: No data available
Burning rate	: No data available
Upper explosion limit	: 6 %(V)
Lower explosion limit	: 0.6 %(V)
Vapour pressure	: < 2.25 mmHg @ 20 °C (68 °F)
Relative vapour density	: > 5(Air = 1.0)
Relative density	: 0.77 @ 15.6 °C (60.1 °F)
Density	: < 1 g/cm ³ @ 20 °C (68 °F)
Bulk density	: No data available
Solubility(ies)	
Water solubility	: insoluble
Solubility in other sol- vents	: No data available
Partition coefficient: n- octanol/water	: log Pow: > 3
Auto-ignition temperature	: > 200 °C
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: < 20.5 mm ² /s @ 40 °C (104 °F)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No hazards to be specially mentioned.

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	Vapours may form explosive mixture with air.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	: Oxidizing agents Strong acids and strong bases
Hazardous decomposition products	: Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

64742-47-8:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: Fixed dose procedure
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity

64742-88-7:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity

111-84-2:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
Test substance: Information given is based on data

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obtained from similar substances.

GLP: yes

Acute inhalation toxicity : LC50 (Rat, male): 17 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: The component/mixture is low toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
Test substance: Information given is based on data obtained from similar substances.
GLP: yes

Skin corrosion/irritation

Components:

64742-47-8:

Remarks: No data available

64742-88-7:

Species: Rabbit

Exposure time: 24 h

Method: In vivo

Result: Irritating to skin.

GLP: yes

111-84-2:

Species: Rabbit

Method: OECD Test Guideline 404

Result: Irritating to skin.

GLP: yes

Test substance: Information given is based on data obtained from similar substances.

Serious eye damage/eye irritation

Components:

64742-47-8:

Remarks: No data available

64742-88-7:

Species: Rabbit

Result: Irritating to eyes.

111-84-2:

Species: Rabbit

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Result: Irritating to eyes.
Method: OECD Test Guideline 405
GLP: yes
Test substance: Information given is based on data obtained from similar substances.

Respiratory or skin sensitisation

Components:

64742-47-8:

Test Type: Buehler Test
Exposure routes: Dermal
Species: Guinea pig
Method: In vivo
Result: Did not cause sensitisation on laboratory animals.
GLP: yes

64742-88-7:

Test Type: Buehler Test
Species: Guinea pig
Method: In vivo
Result: Did not cause sensitisation on laboratory animals.
GLP: yes

111-84-2:

Test Type: Maximization test
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.
GLP: no
Test substance: Information given is based on data obtained from similar substances.

Germ cell mutagenicity

Components:

64742-47-8:

Genotoxicity in vitro : Test Type: Mammalian cell gene mutation assay
Test species: Mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: Chromosome aberration assay in vivo
Test species: Rat (male and female)
Cell type: Bone marrow
Application Route: Intraperitoneal
Exposure time: 6 - 48 hrs

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Dose: 0, 300, 1000, 3000 mg/kg bw
Result: negative
GLP: yes

Germ cell mutagenicity-
Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

64742-88-7:

Genotoxicity in vitro : Test Type: Mammalian cell gene mutation assay
Test species: Mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Result: negative
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Genotoxicity in vivo : Test Type: DNA damage and/or repair
Test species: Mouse (male)
Application Route: Intraperitoneal
Exposure time: 20 -22 h
Dose: 0, 400, 2000, 4000 mg/kg
Result: negative
GLP: yes

Germ cell mutagenicity-
Assessment : Mutagenicity classification not possible from current data

111-84-2:

Genotoxicity in vitro : Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: No data available

Germ cell mutagenicity-
Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:

64742-47-8:

Species: Mouse, (male and female)
Application Route: Dermal
Exposure time: 105 wks
Dose: 0, 25 mg/application
Frequency of Treatment: 3 days/week

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LOAEL: 25

Result: Limited evidence of carcinogenic effects

Symptoms: Local irritation, Dermal tumours

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

64742-88-7:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

111-84-2:

Remarks: This information is not available.

Carcinogenicity - Assessment : Carcinogenicity classification not possible from current data.

Reproductive toxicity

Components:

64742-47-8:

Effects on fertility : Test Type: Fertility
Species: Rat, male and female
Application Route: Oral
Dose: 0, 375, 750, 1500 mg/kg/d
General Toxicity - Parent: NOAEL: 750 mg/kg body weight
General Toxicity F1: NOAEL: 750 mg/kg body weight
Fertility: NOAEL: \geq 1,500 mg/kg body weight
Symptoms: Reduced maternal body weight gain Reduced offspring weight gain
Result: No reproductive effects.

Effects on foetal development : Species: Rat
Application Route: Oral
Dose: 0, 500, 1000, 1500, 2000mg/kg
Duration of Single Treatment: 10 d
General Toxicity Maternal: NOAEL: 500 mg/kg body weight
Teratogenicity: NOAEL: 2,000 mg/kg body weight
Developmental Toxicity: NOAEL: 1,000 mg/kg body weight
Symptoms: Reduced body weight
Method: OECD Test Guideline 414
Result: Developmental toxicity occurred at maternal toxicity dose levels, No teratogenic effects

Reproductive toxicity - : Animal testing did not show any effects on fertility.

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Assessment Embryotoxicity classification not possible from current data.

64742-88-7:

Effects on fertility

: Test Type: Fertility
Species: Rat, female
Application Route: Oral
Dose: 0, 325, 750, 1500 mg/kg/day
Duration of Single Treatment: 147 d
General Toxicity - Parent: NOAEL: 750 mg/kg body weight
General Toxicity F1: NOAEL: 750 mg/kg body weight
Fertility: NOAEL: \geq 1,500 mg/kg body weight
Symptoms: Reduced maternal body weight gain Reduced offspring weight gain
Result: Animal testing did not show any effects on fertility., Embryotoxic effects and adverse effects on the offspring were detected.
GLP: yes

Effects on foetal development

: Species: Rat
Application Route: Oral
Dose: 0, 500, 1000, 1500, 2000 milligram per kilogram
Duration of Single Treatment: 10 d
General Toxicity Maternal: NOAEL: 500 mg/kg body weight
Teratogenicity: NOAEL: 2,000 mg/kg body weight
Developmental Toxicity: NOAEL: 1,000 mg/kg body weight
Symptoms: Reduced body weight
Method: OECD Test Guideline 414
Result: Developmental toxicity occurred at maternal toxicity dose levels, No teratogenic effects

Reproductive toxicity - Assessment

: Animal testing did not show any effects on fertility. Did not show teratogenic effects in animal experiments.

111-84-2:

Effects on fertility

: Test Type: Two-generation study
Species: Rat, male and female
Application Route: inhalation (vapour)
Dose: 0, 900, 3000, 9000 ppm
Duration of Single Treatment: 6 h
Frequency of Treatment: 5 days/week
General Toxicity - Parent: NOAEL: 3,000 ppm
General Toxicity F1: NOAEL: 3,000 ppm
Fertility: NOAEL: 9,000 ppm

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Method: OECD Test Guideline 416
Result: No reproductive effects.
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Effects on foetal development

: Species: Rat
Application Route: inhalation (vapour)
Dose: 0, 900, 3000, 9000 ppm
Duration of Single Treatment: 10 d
Frequency of Treatment: 6 hr/day
General Toxicity Maternal: NOAEL: 3,000 ppm
Developmental Toxicity: NOAEL: 9,000 ppm
Method: OECD Test Guideline 414
Result: No teratogenic effects
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Species: Mouse
Application Route: inhalation (vapour)
Dose: 0, 900, 3000, 9000 ppm
Duration of Single Treatment: 10 d
Frequency of Treatment: 6 hr/day
General Toxicity Maternal: NOAEL: 900 ppm
Developmental Toxicity: NOAEL: 3,000 ppm
Method: OECD Test Guideline 414
Result: Developmental toxicity occurred at maternal toxicity dose levels
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Reproductive toxicity - Assessment

: No toxicity to reproduction
Embryotoxicity classification not possible from current data.

STOT - single exposure

Product: No data available

Components:

64742-47-8: No data available

64742-88-7:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Inhalation	Central nervous system	May cause drowsiness or dizziness., The substance or mixture is classified	

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		as specific target organ toxicant, single exposure, category 3 with narcotic effects.	
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111-84-2:

Exposure routes:	Target Organs:	Assessment:	Remarks:
Inhalation	Central nervous system	May cause drowsiness or dizziness., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.	

STOT - repeated exposure

Product: No data available

Components:

64742-47-8: No data available

64742-88-7: No data available

111-84-2: No data available

Repeated dose toxicity

Components:

64742-47-8:

Species: Rat, male

LOAEL: 750 mg/kg

Application Route: Oral

Exposure time: 70 - 90 days

Number of exposures: daily

Dose: 0, 750, 1500, 3000 mg/kg/d

GLP: yes

Symptoms: weight loss, Liver effects, Stomach/intestinal disorders

Species: Rat, female

NOAEL: 750 mg/kg

Application Route: Oral

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Exposure time: 21 wks
Number of exposures: daily
Dose: 0, 325, 750, 1500 mg/kg/d
GLP: yes
Symptoms: weight loss, Liver effects, Stomach/intestinal disorders

Species: Mouse, male and female
NOAEL: ≥ 1000
Application Route: inhalation (vapour)
Exposure time: 90 d
Number of exposures: 24 h/d, daily
Dose: 0, 500, 1000 mg/m³
GLP: No data available

Species: Rat, male and female
NOAEL: $\geq 0,5$
Application Route: Dermal
Exposure time: 28 d
Number of exposures: 6 h/d, 5 d/wk
Dose: 0, 0.01, 0.05, 0.5 ml/kg bw/d
Method: OECD Test Guideline 410
GLP: yes
Symptoms: Local irritation

Repeated dose toxicity - : Causes skin irritation.
Assessment

64742-88-7:

Species: Rat, male
LOAEL: 750 mg/kg
Application Route: Oral
Exposure time: 70 - 90 d
Number of exposures: Daily
Dose: 0, 750, 1500, 3000 mg/kg/day
GLP: yes
Symptoms: weight loss, Local irritation

Species: Rat, female
NOAEL: 750 mg/kg
Application Route: Oral
Exposure time: 21 wks
Number of exposures: Daily
Dose: 0, 325, 750, 1500 mg/kg/day
GLP: yes
Symptoms: weight loss, Local irritation

Species: Rat, male and female
NOAEL: ≥ 24
Application Route: Inhalation

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Test atmosphere: vapour
Exposure time: 4 wks
Number of exposures: 6 h/d, 5 d/wk
Dose: 0, 24 mg/m³
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Species: Rat, male and female
NOAEL: ≥ 0.5 mg/l
Application Route: Dermal
Exposure time: 4 wks
Number of exposures: 6 h/d, 5 d/wk
Dose: 0, 1.01, 0.05, 0.5 ml/kg/day
Method: OECD Test Guideline 410
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Repeated dose toxicity - : Causes skin irritation.
Assessment

111-84-2:

Species: Rat, female
NOAEL: 100 mg/kg
Application Route: Oral
Exposure time: 90 d
Number of exposures: daily
Dose: 0, 100, 1000, 5000 mg/kg
Method: OECD Test Guideline 408
GLP: no
Symptoms: Increased liver weight

Species: Rat, male
NOAEL: 8.4 mg/l
Application Route: inhalation (vapour)
Exposure time: 13 wk
Number of exposures: 6 h/d, 5 d/wk
Dose: 1.9, 3.1, 8.4 mg/L
Method: OECD Test Guideline 413
GLP: no

Aspiration toxicity

Components:

64742-47-8:

May be fatal if swallowed and enters airways.

64742-88-7:

May be fatal if swallowed and enters airways.

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111-84-2:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may decrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

64742-47-8:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 25 mg/l
 Exposure time: 96 h
 Test Type: static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 203
 GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 1.4 mg/l
 Exposure time: 48 h
 Test Type: static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 202
 GLP: yes

Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (green algae)): 1 mg/l
 End point: Growth rate
 Exposure time: 72 h
 Test Type: static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 201
 GLP: yes

Ecotoxicology Assessment

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

64742-88-7:

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Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 2 mg/l
 Exposure time: 96 h
 Test Type: semi-static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 203
 GLP: yes
 Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 1.4 mg/l
 Exposure time: 48 h
 Test Type: static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 202
 GLP: yes

Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (microalgae)): 1 mg/l
 End point: Growth rate
 Exposure time: 72 h
 Test Type: static test
 Method: OECD Test Guideline 201
 GLP: yes
 Remarks: Information given is based on data obtained from similar substances.

Ecotoxicology Assessment
 Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

111-84-2:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.2 mg/l
 Exposure time: 48 h
 Test Type: static test

Toxicity to algae : Remarks: No data available

M-Factor (Acute aquatic toxicity) : 1

Ecotoxicology Assessment
 Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

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Persistence and degradability

Components:

64742-47-8:

Biodegradability : aerobic
 Concentration: 101 mg/l
 Biodegradation: 61 %
 Exposure time: 28 d
 GLP: yes
 Remarks: Readily biodegradable

64742-88-7:

Biodegradability : aerobic
 Concentration: 101 mg/l
 Biodegradation: 61 %
 Testing period: 10 d
 Exposure time: 28 d
 Lag phase: 5 d
 Test substance: Solvent naphtha (petroleum), heavy aromatic
 GLP: yes

111-84-2:

Biodegradability : aerobic
 Result: Readily biodegradable
 Biodegradation: 67 - 100 %
 Exposure time: 15 d

Bioaccumulative potential

No data available

Mobility in soil

Components:

64742-88-7:

Stability in soil : Remarks: Adsorbs on soil.

Other adverse effects

No data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact NEXEO's Environmental Services Group at 800-637-7922.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

IATA (International Air Transport Association): UN1268, PETROLEUM DISTILLATES, N.O.S., 3, III, Flash Point:40.6 °C(105.1 °F)

IMDG (International Maritime Dangerous Goods): UN1268, PETROLEUM DISTILLATES, N.O.S., 3, III, Marine Pollutant (PETROLEUM DISTILLATE, HYDROTREATED LIGHT)

DOT (Department of Transportation): UN1268, PETROLEUM DISTILLATES, N.O.S., 3, III

Special Notes: : The flash point for this material is greater than 100 F (38 C). Therefore, in accordance with 49 CFR 173.150(f) non-bulk containers (<450L or <119 gallon capacity) of this material may be shipped as non-regulated when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically listed as a hazardous substance.

SECTION 15. REGULATORY INFORMATION

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OSHA Hazards : Combustible Liquid, Moderate skin irritant, Moderate eye irritant, Specific target organ toxicity - single exposure, Aspiration hazard

WHMIS Classification : B3: Combustible Liquid
D2B: Toxic Material Causing Other Toxic Effects

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Mixed xylenes	1330-20-7	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Immediate (Acute) Health Hazard

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCOMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

1330-20-7	Mixed xylenes	0.136 PPM
100-41-4	Ethylbenzene	0.0679 PPM

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

1330-20-7	Mixed xylenes	0.136 PPM
100-41-4	Ethylbenzene	0.0679 PPM

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

111-84-2	Nonane	1 - 5 %
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Pennsylvania Right To Know

64742-47-8	Distillates (pet), hydrotreated light	50 - 70 %
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64742-88-7	Solvent naphtha (pet), med aliph.	30 - 50 %
111-84-2	Nonane	1 - 5 %
95-63-6	1,2,4-trimethylbenzene	0.1 - 1 %

New Jersey Right To Know

64742-47-8	Distillates (pet), hydrotreated light	50 - 70 %
64742-88-7	Solvent naphtha (pet), med aliph.	30 - 50 %
111-84-2	Nonane	1 - 5 %

California Prop 65

	WARNING! This product contains a chemical known to the State of California to cause cancer.	
100-41-4	Ethylbenzene	

The components of this product are reported in the following inventories:

United States TSCA Inventory	:	y (positive listing) (On TSCA Inventory)
Canadian Domestic Substances List (DSL)	:	y (positive listing) (All components of this product are on the Canadian DSL.)
Australia Inventory of Chemical Substances (AICS)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Japan. ENCS - Existing and New Chemical Substances Inventory	:	n (Negative listing) (Not in compliance with the inventory)
Japan. ISHL - Inventory of Chemical Substances	:	n (Negative listing) (Not in compliance with the inventory)
Korea. Korean Existing Chemicals Inventory (KECI)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	:	y (positive listing) (On the inventory, or in compliance with the inventory)
China. Inventory of Existing Chemical Substances in China (IECSC)	:	y (positive listing) (On the inventory,

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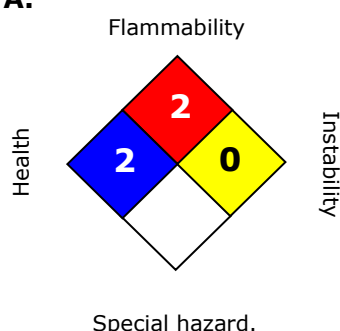
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	or in compliance with the inventory)
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SECTION 16. OTHER INFORMATION **Further information**

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by NEXEO™ Solutions EHS Product Safety Department (1-855-429-2661) MSDS@nexeosolutions.com.

Material number:

16061937, 16055973, 16055972

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals

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EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50			Lethal Concentration 50%