ADVASOL® 150

Safety Data Sheet

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SECTION 1: Identification

1.1. Identification

Product form	:	Substance
Trade name	:	ADVASOL® 150
Chemical name	:	Petroleum Distillates
CAS-No.	:	64742-94-5
Product code	:	NS-ADV150
Formula	:	Unspecified
Synonyms	:	Naphtha (petroleum), heavy aromatic / Heavy aromatic naphtha / Solvent naphtha (petroleum), heavy aromatic / Heavy aromatic solvent naphtha / Aromatic 150 / Solvent naphtha (petroleum) heavy aromatic / Solvent naphtha / Heavy aromatic solvent naphtha (petroleum) / Solvent naphtha, petroleum, heavy aromatic (A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9-16 and boiling in the range of approximately 165-290°C.) / Hydrocarbons, C10-13, aromatics, >1% naphthalene / Solvent naphtha (petroleum), heavy aromatic; Kerosine - unspecified [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165°C to 290°C (330°F to 554°F).]
Other means of identification	:	C-700 Overhead; Advasol® A150; Advasol® A150E (7% max. naphthalene)

1.2. Recommended use and restrictions on use

Use of the substance/mixture	:	Solvent

1.3. Supplier

Monument Chemical
5501 West Baker Road
Baytown, TX 77520 - USA
T (281) 424-1255
sds@monumentchemical.com - www.monumentchemical.com

1.4. Emergency telephone number

Emergency number	:	24 HR CHEMTREC: 1-800-424-9300 (International +1 703-741-5970); 24HR Emergency Assistance: 1-281-424-1255

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 4	H227	Combustible liquid
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation
Carcinogenicity Category 2	H351	Suspected of causing cancer
Specific target organ toxicity (single exposure) Category 3	H336	May cause drowsiness or dizziness
Aspiration hazard Category 1	H304	May be fatal if swallowed and enters airways
Hazardous to the aquatic environment - Acute Hazard Category 1	H400	Very toxic to aquatic life

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) :
H227 - Combustible liquid
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H351 - Suspected of causing cancer
H400 - Very toxic to aquatic life

Precautionary statements (GHS US) :
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear eye protection, protective gloves, protective clothing.
P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER.
P302+P352 - If on skin: Wash with plenty of water.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a doctor, a POISON CENTER if you feel unwell.
P321 - Specific treatment (see a doctor on this label).
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+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry extinguishing powder, Water spray to extinguish.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Chemical name : Petroleum Distillates

CAS-No. : 64742-94-5

Name	Product identifier	%
Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified, [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165 °C to 290 °C (330 °F to 554 °F).]	(CAS-No.) 64742-94-5	100
2-Methylnaphthalene	(CAS-No.) 91-57-6	0 – 40
Naphthalene, dimethyl-	(CAS-No.) 28804-88-8	0 – 25
Trimethyl Naphthalenes	(CAS-No.) 28652-77-9	0 – 25
1-Methylnaphthalene	(CAS-No.) 90-12-0	0 – 23
naphthalene	(CAS-No.) 91-20-3	0 – 14

Name	Product identifier	%
biphenyl, diphenyl	(CAS-No.) 92-52-4	0 – 8
2-Ethylnaphthalene	(CAS-No.) 939-27-5	0 – 6
1-Ethylnaphthalene	(CAS-No.) 1127-76-0	0 – 4

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Gently wash with plenty of soap and water, Get medical advice/attention. Get medical advice/attention. Specific treatment (see Consult a doctor/medical service on this label). Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Consult an eye specialist. Get medical advice/attention. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after inhalation : May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Causes skin irritation. Irritation.

Symptoms/effects after eye contact : Causes serious eye irritation. Eye irritation.

Symptoms/effects after ingestion : Risk of lung edema.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Combustible liquid.

Explosion hazard : May form flammable/explosive vapor-air mixture.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. Avoid breathing dust, fume, gas, mist, spray, vapors. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust, fume, gas, mist, spray, vapors. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes.

Hygiene measures : Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Ignition sources, Incompatible materials. Keep in fireproof place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Petroleum Distillates (64742-94-5)	
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) (ppm)	500 ppm

Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified, [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165 °C to 290 °C (330 °F to 554 °F).] (64742-94-5)	
USA - OSHA - Occupational Exposure Limits	
OSHA PEL (TWA) (ppm)	500 ppm

2-Methylnaphthalene (91-57-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Methyl naphthalene
ACGIH TWA (ppm)	0.5 ppm
Remark (ACGIH)	LRT irr; lung dam

ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route, Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2020

1-Methylnaphthalene (90-12-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	1-Methylnaphthalene
ACGIH TWA (ppm)	0.5 ppm
Remark (ACGIH)	TLV® Basis: LRT irr; lung dam. Notations: Skin; A4 (Not classifiable as a Human Carcinogen)
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route, Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2020

Naphthalene, dimethyl- (28804-88-8)
No additional information available

naphthalene (91-20-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Naphthalene
ACGIH TWA (ppm)	10 ppm
Remark (ACGIH)	Hematologic eff; URT & eye irr; Skin; A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure)
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route, Confirmed Animal Carcinogen with Unknown Relevance to Humans
Regulatory reference	ACGIH 2020
USA - ACGIH - Biological Exposure Indices	
Local name	NAPHTHALENE
Biological Exposure Indices (BEI)	Parameter: 1-Naphthol with hydrolysis plus 2-Naphthol with hydrolysis - Sampling time: end of shift (nonquantitative, nonspecific)
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Limits	
Local name	Naphthalene
OSHA PEL (TWA) (mg/m³)	50 mg/m³
OSHA PEL (TWA) (ppm)	10 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
US IDLH (ppm)	250 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA) (mg/m³)	50 mg/m³
NIOSH REL (TWA) [ppm]	10 ppm
NIOSH REL (STEL) (mg/m³)	75 mg/m³
NIOSH REL (STEL) [ppm]	15 ppm

biphenyl, diphenyl (92-52-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Biphenyl
ACGIH TWA (ppm)	0.2 ppm
Remark (ACGIH)	Pulm func
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Limits	
Local name	Diphenyl (Biphenyl)
OSHA PEL (TWA) (mg/m³)	1 mg/m³
OSHA PEL (TWA) (ppm)	0.2 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

USA - IDLH - Occupational Exposure Limits	
US IDLH (mg/m³)	100 mg/m³
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA) (mg/m³)	1 mg/m³
NIOSH REL (TWA) [ppm]	0.2 ppm

2-Ethylnaphthalene (939-27-5)
No additional information available

Trimethyl Naphthalenes (28652-77-9)
No additional information available

1-Ethylnaphthalene (1127-76-0)
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.

Personal protective equipment symbol(s):

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Liquid.

Color : brown Green

Odor : aromatic

Odor threshold : No data available

pH : No data available

Melting point : Not applicable

Freezing point : -35 °F

Boiling point : 400 °F

Flash point : > 150 °F

Relative evaporation rate (butyl acetate=1) : < 1

Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	4.9
Relative density	:	0.9593 – 0.9826
Solubility	:	Insoluble in water. Water: < 1 mg/l (at 20 °C)
Partition coefficient n-octanol/water (Log Pow)	:	2.9 – 6.1
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	2 mm²/s at 100° F
Viscosity, dynamic	:	No data available
Explosion limits	:	1.9 – 6.8
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Combustible liquid. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Petroleum Distillates (64742-94-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
LC50 Inhalation - Rat	> 0.59 mg/l (Exposure time: 4 h)

Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified, [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165 °C to 290 °C (330 °F to 554 °F).] (64742-94-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
LC50 Inhalation - Rat	> 5.2 mg/l (Exposure time: 4 h)

2-Methylnaphthalene (91-57-6)	
LD50 oral rat	1630 mg/kg
ATE US (oral)	1630 mg/kg body weight

1-Methylnaphthalene (90-12-0)	
LD50 oral rat	1840 mg/kg

1-Methylnaphthalene (90-12-0)	
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Literature study, Dermal)
ATE US (oral)	1840 mg/kg body weight

naphthalene (91-20-3)	
LD50 oral rat	1110 mg/kg
LD50 dermal rat	> 2500 mg/kg (Rat, Dermal)
LD50 dermal rabbit	> 2000 mg/kg body weight
LC50 Inhalation - Rat	> 0.34 mg/l (Exposure time: 1 h)
ATE US (oral)	533 mg/kg body weight

biphenyl, diphenyl (92-52-4)	
LD50 oral rat	2140 mg/kg
LD50 dermal rabbit	> 5010 mg/kg
LC50 Inhalation - Rat	> 3.47 mg/l (1 h, Rat, Male / female, Experimental value, Inhalation, 14 day(s))
ATE US (oral)	2140 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity, Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity : Not classified

naphthalene (91-20-3)	
LOAEL (animal/female, F0/P)	50 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:OECD Guideline 414 (Prenatal Developmental Toxicity Study)
LOAEL (animal/female, F1)	450 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:OECD Guideline 414 (Prenatal Developmental Toxicity Study)
NOAEL (animal/female, F0/P)	120 mg/kg body weight Animal: rabbit, Animal sex: female, Guideline: other:OECD Guideline 414 (Prenatal Developmental Toxicity Study)

STOT-single exposure : May cause drowsiness or dizziness.

biphenyl, diphenyl (92-52-4)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

naphthalene (91-20-3)	
LOAEL (oral,rat,90 days)	400 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
LOAEC (inhalation,rat,vapor,90 days)	0.011 mg/l air Animal: rat, Guideline: EPA OPP 82-4 (90-Day Inhalation Toxicity), Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (dermal,rat/rabbit,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Aspiration hazard : May be fatal if swallowed and enters airways.
Viscosity, kinematic : 2 mm²/s at 100° F

Potential Adverse human health effects and symptoms	:	Based on available data, the classification criteria are not met.
Symptoms/effects	:	May cause drowsiness or dizziness.
Symptoms/effects after inhalation	:	May cause drowsiness or dizziness.
Symptoms/effects after skin contact	:	Causes skin irritation. Irritation.
Symptoms/effects after eye contact	:	Causes serious eye irritation. Eye irritation.
Symptoms/effects after ingestion	:	Risk of lung edema.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	:	Very toxic to aquatic life.
Ecology - water	:	Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Petroleum Distillates (64742-94-5)	
LC50 fish 1	19 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	0.95 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	2.34 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified, [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165 °C to 290 °C (330 °F to 554 °F).] (64742-94-5)	
LC50 fish 1	19 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	0.95 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	2.34 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

2-Methylnaphthalene (91-57-6)	
LC50 fish 1	8 mg/l (96 h, Oncorhynchus mykiss, Literature study)

1-Methylnaphthalene (90-12-0)	
LC50 fish 1	8.4 mg/l (48 h, Salmo fario, Static system, Yearlings)
EC50 Daphnia 1	1.2 mg/l (48 h, Daphnia magna, Literature study)
LC50 fish 2	9 mg/l (96 h, Pimephales promelas, Static system, Literature study)

naphthalene (91-20-3)	
LC50 fish 1	5.74 – 6.44 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	2.16 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	1.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 2	1.96 mg/l (Exposure time: 48 h - Species: Daphnia magna [Flow through])
NOEC (chronic)	0.59 mg/l Test organisms (species): Daphnia pulex Duration: '125 d'
NOEC chronic fish	≈ 0.37 mg/l Test organisms (species): Oncorhynchus kisutch Duration: '40 d'

biphenyl, diphenyl (92-52-4)	
LC50 fish 1	1.65 – 2.29 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0.63 – 0.85 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	1.17 – 1.81 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
LOEC (chronic)	0.33 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.17 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	0.229 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '87 d'

12.2. Persistence and degradability

Petroleum Distillates (64742-94-5)	
Persistence and degradability	May cause long-term adverse effects in the environment.

2-Methylnaphthalene (91-57-6)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water.

1-Methylnaphthalene (90-12-0)	
Persistence and degradability	Not established.

Naphthalene, dimethyl- (28804-88-8)	
Persistence and degradability	Biodegradability in soil: no data available.

Naphthalene, dimethyl- (28804-88-8)	
ThOD	3.07 g O_2/g substance

naphthalene (91-20-3)	
Persistence and degradability	Not established.
Biochemical oxygen demand (BOD)	0 g O_2/g substance
Chemical oxygen demand (COD)	0.22 g O_2/g substance
ThOD	2.99 g O_2/g substance

biphenyl, diphenyl (92-52-4)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.08 g O_2/g substance
ThOD	3.01 g O_2/g substance
BOD (% of ThOD)	0.36

2-Ethylnaphthalene (939-27-5)	
Persistence and degradability	Biodegradability in water: no data available.

1-Ethylnaphthalene (1127-76-0)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Petroleum Distillates (64742-94-5)	
BCF fish 1	61 – 159
Partition coefficient n-octanol/water (Log Pow)	2.9 – 6.1
Bioaccumulative potential	Not established.

Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified, [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165 °C to 290 °C (330 °F to 554 °F).] (64742-94-5)	
BCF fish 1	61 – 159
Partition coefficient n-octanol/water (Log Pow)	2.9 – 6.1

2-Methylnaphthalene (91-57-6)	
BCF fish 1	407 (Other, 624 h, Lepomis macrochirus, Flow-through system, Literature study, Muscles)
Partition coefficient n-octanol/water (Log Pow)	3.86
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1-Methylnaphthalene (90-12-0)	
BCF fish 1	20 (5 week(s), Oncorhynchus kisutch, Literature study)
Partition coefficient n-octanol/water (Log Pow)	3.87 (Experimental value)
Bioaccumulative potential	Not established.

Naphthalene, dimethyl- (28804-88-8)	
Bioaccumulative potential	No bioaccumulation data available.

naphthalene (91-20-3)	
BCF fish 1	30 – 430
Partition coefficient n-octanol/water (Log Pow)	3.6
Bioaccumulative potential	Not established.

biphenyl, diphenyl (92-52-4)	
BCF fish 1	1900 (Equivalent or similar to OECD 305, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value)
BCF other aquatic organisms 1	540 (24 h, Chlorella sp., Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).

2-Ethylnaphthalene (939-27-5)	
Partition coefficient n-octanol/water (Log Pow)	4.38

1-Ethylnaphthalene (1127-76-0)	
Partition coefficient n-octanol/water (Log Pow)	4.4 (QSAR)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

2-Methylnaphthalene (91-57-6)	
Partition coefficient n-octanol/water (Log Koc)	3.64 – 3.93 (log Koc, Calculated value)
Ecology - soil	Low potential for mobility in soil.

naphthalene (91-20-3)	
Surface tension	0.03 N/m (100 °C)
Ecology - soil	Adsorbs into the soil.

biphenyl, diphenyl (92-52-4)	
Ecology - soil	Low potential for mobility in soil.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : NA1993 Combustible liquid, n.o.s. (Naphthalene, Biphenyl), 3, III

UN-No.(DOT) : NA1993

Proper Shipping Name (DOT) : Combustible liquid, n.o.s.
Naphthalene, Biphenyl

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : III - Minor Danger

Dangerous for the environment : Yes

Marine pollutant : Yes

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Symbols : D - Proper shipping name for domestic use only, or to and from Canada,G - Identifies PSN requiring a technical name

DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	220 L
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.
Other information	:	No supplementary information available.

Transport by sea

Transport document description (IMDG)	:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Naphthalene, Biphenyl), 9, III
UN-No. (IMDG)	:	3082
Proper Shipping Name (IMDG)	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class (IMDG)	:	9 - Miscellaneous dangerous substances and articles
Packing group (IMDG)	:	III - substances presenting low danger
Limited quantities (IMDG)	:	5 L
EmS-No. (1)	:	F-A
EmS-No. (2)	:	S-F
Marine pollutant	:	Yes

Air transport

Transport document description (IATA)	:	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Naphthalene, Biphenyl), 9, III
UN-No. (IATA)	:	3082
Proper Shipping Name (IATA)	:	Environmentally hazardous substance, liquid, n.o.s.
Class (IATA)	:	9 - Miscellaneous Dangerous Goods
Packing group (IATA)	:	III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Petroleum Distillates (64742-94-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

2-Ethylnaphthalene	CAS-No. 939-27-5	0 – 6%
Trimethyl Naphthalenes	CAS-No. 28652-77-9	0 – 25%
1-Ethylnaphthalene	CAS-No. 1127-76-0	0 – 4%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Naphthalene	CAS-No. 91-20-3	0 – 14%
Biphenyl	CAS-No. 92-52-4	0 – 8%

naphthalene (91-20-3)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb

biphenyl, diphenyl (92-52-4)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb

15.2. International regulations

CANADA

Petroleum Distillates (64742-94-5)
Listed on the Canadian DSL (Domestic Substances List)

Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified, [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165 °C to 290 °C (330 °F to 554 °F).] (64742-94-5)
Listed on the Canadian DSL (Domestic Substances List)

2-Methylnaphthalene (91-57-6)
Listed on the Canadian DSL (Domestic Substances List)

1-Methylnaphthalene (90-12-0)
Listed on the Canadian DSL (Domestic Substances List)

Naphthalene, dimethyl- (28804-88-8)
Listed on the Canadian NDSL (Non-Domestic Substances List)

naphthalene (91-20-3)	
Listed on the Canadian DSL (Domestic Substances List)	
Toxic Substance (CEPA – Schedule I)	Yes

biphenyl, diphenyl (92-52-4)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Petroleum Distillates (64742-94-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified, [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165 °C to 290 °C (330 °F to 554 °F).] (64742-94-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

2-Methylnaphthalene (91-57-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

1-Methylnaphthalene (90-12-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Naphthalene, dimethyl- (28804-88-8)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

naphthalene (91-20-3)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

biphenyl, diphenyl (92-52-4)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

2-Ethylnaphthalene (939-27-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Trimethyl Naphthalenes (28652-77-9)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

1-Ethylnaphthalene (1127-76-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Petroleum Distillates (64742-94-5)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)

Solvent naphtha (petroleum), heavy arom.; Kerosine - unspecified, [A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 165 °C to 290 °C (330 °F to 554 °F).] (64742-94-5)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

2-Methylnaphthalene (91-57-6)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

1-Methylnaphthalene (90-12-0)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Naphthalene, dimethyl- (28804-88-8)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

naphthalene (91-20-3)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

biphenyl, diphenyl (92-52-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

2-Ethylnaphthalene (939-27-5)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)

1-Ethylnaphthalene (1127-76-0)
Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

⚠ **WARNING:** This product can expose you to naphthalene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
2-Methylnaphthalene(91-57-6)	U.S. - New Jersey - Right to Know Hazardous Substance List
1-Methylnaphthalene(90-12-0)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
naphthalene(91-20-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List
biphenyl, diphenyl(92-52-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 09/03/2020

Other information : None.

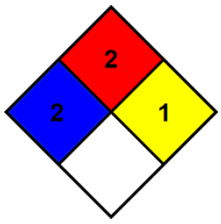
Full text of H-phrases:

H227	Combustible liquid
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H400	Very toxic to aquatic life

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



SDS US (GHS HazCom 2012)

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