SAFETY DATA SHEET

ADDITIN RC 7132

Version	Revision Date:	SDS Number:	Date of last issue: 02/11/2022
5.0	02/07/2023	203000003094	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : ADDITIN RC 7132

Product code : 000000000003811348

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 : Additive for lubricants

SECTION 2. HAZARDS IDENTIFICATION

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

Skin sensitization : Category 1

Carcinogenicity : Category 2

Specific target organ toxicity - repeated exposure (Oral) : Category 2 (Blood, Kidney)

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : May cause an allergic skin reaction.
Suspected of causing cancer.

May cause damage to organs (Blood, Kidney) through prolonged or repeated exposure if swallowed.

Precautionary Statements :

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist or vapors.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF ON SKIN: Wash with plenty of soap and water.
IF exposed or concerned: Get medical advice/ attention.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.

Storage:

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 : Antioxidants

Components

Chemical name	CAS-No.	Concentration (% w/w)
N-1-naphthylaniline	90-30-2	>= 20 - < 30
1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-	94270-86-7	>= 1 - < 5
diphenylamine	122-39-4	>= 0.1 - < 1

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

SECTION 4. FIRST AID MEASURES

If inhaled : Remove to fresh air immediately. Get medical attention immediately.

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.
The exposed person may need to be kept under medical surveillance for 48 hours.
If not breathing give artificial respiration using a pocket mask type resuscitator. Move to an area free from further exposure.
Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life threatening.

In case of skin contact : Get medical attention immediately.
Wash skin immediately with plenty of water and soap. Subsequent cleansing with polyethyleneglycol 400, then again with water and soap.
Continue to rinse for at least 20 minutes.
Remove contaminated clothing and wash 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.
Do not induce vomiting unless directed to do by medical personnel.
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.
Never give anything by mouth to an unconscious person.
Maintain open airway.

Most important symptoms and effects, both acute and delayed

Symptoms : Skin: Causes irritation with symptoms of reddening, itching, and swelling.
Once sensitized, an allergic skin reaction may occur with reddening, swelling, and rash when subsequently exposed to very low levels.
May cause methemoglobin formation resulting in a reduced ability of the blood to carry oxygen.
A symptom of methemoglobin formation may be cyanosis (purplish-blue coloring of the skin, fingernails, and lips).
Adverse symptoms sometimes include the following:
carcinogenic effects

Effects : May cause an allergic skin reaction.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated

exposure if swallowed.

Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.
Notes to physician	:	Immediately give oxygen if signs of cyanosis (lips, ears, fingernails). Spontaneous reversal of methemoglobin can occur after termination of exposure. Cyanosis alone does not require treatment. Provide supportive measures only unless there are clinical signs/symptoms of hypoxia other than cyanosis, or if methemoglobin levels are >30%. Methylene blue may be used if clinically indicated. Hyperbaric oxygen therapy should be considered if methylene blue therapy is not effective or contra-indicated (G6PD deficiency). Consider exchange transfusions for severe cases that are refractory to other treatment. Methemoglobin development may be delayed and victim should be observed for at least 6 hours. Hemolysis may appear 24 hours or more after exposure and may cause acute renal failure and arrhythmias. Patients with significant exposures should be monitored for hypoxia and hemolysis for up to 7 days after exposure. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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.
Hazardous combustion products	:	Carbon dioxide (CO2) Carbon monoxide Nitrogen oxides (NOx) Sulfur oxides
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.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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. Evacuate personnel to safe areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapors or spray mist. Ensure adequate ventilation or exhaust ventilation in the working area.
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.

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. Persons with a history of skin sensitization to this product should not be employed in any process in which this product is used. Do not breathe vapors or spray mist. Use only with adequate ventilation.
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 : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
diphenylamine	122-39-4	TWA	10 mg/m3	ACGIH

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.
The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline.
NIOSH approved, air-purifying organic vapor respirator.

Hand protection

Material : PVC
Wearing time : < 60 min

Remarks : Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective 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

Appearance	:	liquid
Physical state	:	liquid
Color	:	brown
Odor	:	amine-like
Odor Threshold	:	No data available
pH	:	Not applicable
Melting point/range	:	No data available
Boiling point/boiling range	:	> 572 °F / > 300 °C (1,013 hPa)
Flash point	:	356 °F / 180 °C Method: closed cup
Evaporation rate	:	No data available
Self-ignition	:	No data available
Burning number	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available

Relative density	:	No data available
Density	:	1.087 g/cm3 (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	slightly soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	300 mm2/s (104 °F / 40 °C)
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Reducing agents Oxidizing agents Acids and bases
Hazardous decomposition products	:	No hazardous decomposition products are known.

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

Skin contact
Eye contact
Inhalation
Ingestion

Acute toxicity

Not classified based on available information.

Product:

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

Components:

N-1-naphthylaniline:

Acute oral toxicity	:	LD50 (Rat, male): 1,625 mg/kg
Acute dermal toxicity	:	LD50 (Rabbit, male): > 5,000 mg/kg

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-:

Acute oral toxicity	:	LD50 (Rat): 3,313 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity

diphenylamine:

Acute oral toxicity	:	LD50 (Rat): 800 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

N-1-naphthylaniline:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
GLP	:	no

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-:

Species	:	Rabbit
Exposure time	:	24 h
Result	:	Irritating to skin.

diphenylamine:

Species	:	Rabbit
Method	:	Draize Test
Result	:	No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

N-1-naphthylaniline:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405
GLP	:	no

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-:

Species	:	Rabbit
Result	:	No eye irritation

diphenylamine:

Species	:	Rabbit
Result	:	Irritating to eyes.
Method	:	Draize Test

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Components:

N-1-naphthylaniline:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	The product is a skin sensitiser, sub-category 1B.
GLP	:	no

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-:

Routes of exposure	:	Dermal
Species	:	Guinea pig

Result : May cause sensitization by skin contact.

diphenylamine:

Routes of exposure : Skin contact
Species : Guinea pig
Result : Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Components:

N-1-naphthylaniline:

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

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: No information available.

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: No information available.

Genotoxicity in vivo : Test Type: dominant lethal test
Species: Mouse (male)
Application Route: Intraperitoneal
Method: OECD Test Guideline 478
Result: negative
GLP: No information available.

diphenylamine:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with metabolic activation
Method: OECD Test Guideline 473
Result: positive
GLP: yes

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with metabolic activation
Method: OECD Test Guideline 476
Result: positive
GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Cell type: Bone marrow
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Test Type: unscheduled DNA synthesis assay
Species: Rat (male)
Cell type: Liver cells
Application Route: Oral
Method: OECD Test Guideline 486
Result: negative
GLP: yes

Carcinogenicity

Suspected of causing cancer.

Components:

diphenylamine:

Species	:	Rat, male
Application Route	:	Oral
Exposure time	:	2 Years
Dose	:	0 - 250 - 1000 - 4000 parts per million
NOAEL	:	250 ppm
Method	:	OECD Test Guideline 451
Result	:	positive
GLP	:	yes
Remarks	:	Animal experiments showed a statistically significant number of tumors.

Species	:	Rat, female
Application Route	:	Oral
Exposure time	:	2 Years
Dose	:	0 - 250 - 1000 - 4000 parts per million
LOAEL	:	250 parts per million
Method	:	OECD Test Guideline 451
Result	:	positive
GLP	:	yes
Remarks	:	Animal experiments showed a statistically significant number of tumors.

Species	:	Mouse, male
Application Route	:	Oral
Exposure time	:	2 Years
Dose	:	0 - 250 - 1000 - 4000 parts per million
LOAEL	:	250 parts per million
Method	:	OECD Test Guideline 451
Result	:	positive
GLP	:	yes
Remarks	:	Animal experiments showed a statistically significant number of tumors.

Species	:	Mouse, female
Application Route	:	Oral
Exposure time	:	2 Years
Dose	:	0 - 250 - 1000 - 4000 parts per million
LOAEL	:	250 parts per million
Method	:	OECD Test Guideline 451
Result	:	negative
GLP	:	yes
Remarks	:	Animal testing did not show any carcinogenic effects.

Carcinogenicity - Assessment	:	Limited evidence of carcinogenicity in animal studies

IARC	Group 2B: Possibly carcinogenic to humans	
	diphenylamine	122-39-4

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:

N-1-naphthylaniline:

Effects on fetal development : Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Dose: 15 - 50 - 150 milligram per kilogram
General Toxicity Maternal: NOAEL: 50 mg/kg bw/day
Developmental Toxicity: NOAEL: 150 mg/kg bw/day
Method: OECD Test Guideline 414
GLP: yes

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-:

Effects on fertility : General Toxicity Parent: NOAEL: 45 mg/kg body weight
Fertility: NOAEL: 150 mg/kg body weight
Early Embryonic Development: NOAEL: 45 mg/kg body weight

STOT-single exposure

Not classified based on available information.

Components:

diphenylamine:

Target Organs : Blood
Assessment : May cause damage to organs.

STOT-repeated exposure

May cause damage to organs (Blood, Kidney) through prolonged or repeated exposure if swallowed.

Components:

N-1-naphthylaniline:

Routes of exposure : Oral
Target Organs : Blood, Kidney
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

diphenylamine:

Routes of exposure	:	Ingestion
Target Organs	:	spleen, Liver, Kidney
Assessment	:	May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

N-1-naphthylaniline:

Species	:	Rat, male and female
LOAEL	:	5 mg/kg
Application Route	:	Oral
Exposure time	:	90 d
Number of exposures	:	daily
Dose	:	5 - 25 - 125 mg/kg bw/day
Method	:	OECD Test Guideline 408
GLP	:	yes
Target Organs	:	Blood, Kidney
Assessment	:	The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Remarks	:	Subchronic toxicity

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-:

Species	:	Rat
NOAEL	:	45 mg/kg
Application Route	:	Oral

diphenylamine:

Species	:	Rat, male and female
NOAEL	:	3 mg/kg
LOAEL	:	30 mg/kg
Application Route	:	Oral
Exposure time	:	2 a
Number of exposures	:	daily
Dose	:	0,3-3-30-150-300 mg/kg bw/d
Method	:	OECD Test Guideline 452
GLP	:	No information available.
Remarks	:	Chronic toxicity

Species	:	Dog, male and female
NOAEL	:	2 mg/kg
LOAEL	:	20 mg/kg
Application Route	:	Oral
Exposure time	:	737 d
Number of exposures	:	daily
Dose	:	2 - 20 - 200 mg/kg bw/day

Method : OECD Test Guideline 452
GLP : No information available.
Remarks : Chronic toxicity

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

N-1-naphthylaniline:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.44 mg/l
Exposure time: 96 h
Analytical monitoring: no
Remarks: nominal concentration

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.3 mg/l
End point: Immobilization
Exposure time: 48 h
Analytical monitoring: no
Remarks: nominal concentration

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.93 mg/l
End point: Growth rate
Exposure time: 96 h
Analytical monitoring: no
Remarks: nominal concentration

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.032 mg/l
End point: Reproduction
Exposure time: 21 d
Analytical monitoring: no
Method: OECD Test Guideline 211
GLP: yes
Remarks: nominal concentration

Toxicity to microorganisms : EC50 (activated sludge): > 10,000 mg/l
End point: Respiration inhibition
Exposure time: 3 h
Method: OECD Test Guideline 209

1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 1.3 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates	:	EC10 (Daphnia magna (Water flea)): 1.93 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Desmodesmus subspicatus (green algae)): 0.976 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 EC10 (Desmodesmus subspicatus (green algae)): 0.658 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to microorganisms	:	EC50 (Bacteria): 13 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

diphenylamine:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 2.2 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2 mg/l Exposure time: 48 h Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes EC50 (Daphnia magna (Water flea)): 1.2 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 2.17 mg/l End point: Growth rate Exposure time: 72 h Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes NOEC (Pseudokirchneriella subcapitata (green algae)): 0.37 mg/l End point: Growth rate Exposure time: 72 h Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.16 mg/l Exposure time: 21 d Method: OECD Test Guideline 202

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

Persistence and degradability

Components:

N-1-naphthylaniline:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 14 d
Method: OECD Test Guideline 301C

diphenylamine:

Biodegradability : aerobic
Concentration: 1.9 mg/l
Result: Not readily biodegradable.
Biodegradation: 26 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
GLP: No information available.

Bioaccumulative potential

Components:

N-1-naphthylaniline:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): >= 427
Exposure time: 56 d
Method: OECD Test Guideline 305C

Partition coefficient: n-octanol/water : log Pow: 4.28

diphenylamine:

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Partition coefficient: n-octanol/water : log Pow: 3.82 (68 °F / 20 °C)
Method: OECD Test Guideline 107

Mobility in soil

No data available

Other adverse effects

Product:

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

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. Dispose of wastes in an approved waste disposal facility. This material and its container must be disposed of in a safe way. The product should not be allowed to enter drains, water courses or the soil. 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 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (MIXTURE CONTAINS PHENYL-1-NAPHTHYLAMINE, DIPHENYL AMINE)
Class	:	9
Packing group	:	III
Labels	:	9
	:	
Packing instruction (cargo aircraft)	:	964 : 450.00 L
Packing instruction (passenger aircraft)	:	964 : 450.00 L

Environmentally hazardous : yes

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MIXTURE CONTAINS PHENYL-1-NAPHTHYLAMINE, DIPHENYL AMINE)
Class	:	9
Packing group	:	III
Labels	:	9
	:	

EmS Code	:	F-A, S-F
Marine pollutant	:	yes

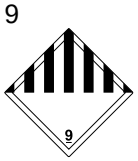
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (MIXTURE CONTAINS PHENYL-1-NAPHTHYLAMINE, DIPHENYL AMINE)
Class	:	9
Packing group	:	III
Labels	:	9
	:	



ERG Code	:	171
Marine pollutant	:	yes

The U.S. DOT regulations in 49 CFR 172.102 permit this material to ship as an Environmentally Hazardous Substance, Class 9, using Special Provision 146.

Hazard and Handling Notes.
Environmentally hazardous substance., Keep dry., 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 : Respiratory or skin sensitization
Carcinogenicity
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

N-1-naphthylaniline	90-30-2	20 - 30

Pennsylvania Right To Know

Benzenamine, N-phenyl-, styrenated	68442-68-2	> 1
N-1-naphthylaniline	90-30-2	20 - 30
4,4'-methylene bis(dibutyldithiocarbamate)	10254-57-6	> 1
Benzene, mono-C10-13-alkyl derivs., distn. residues	84961-70-6	> 1
1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-ar-methyl-	94270-86-7	1 - 5
diphenylamine	122-39-4	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

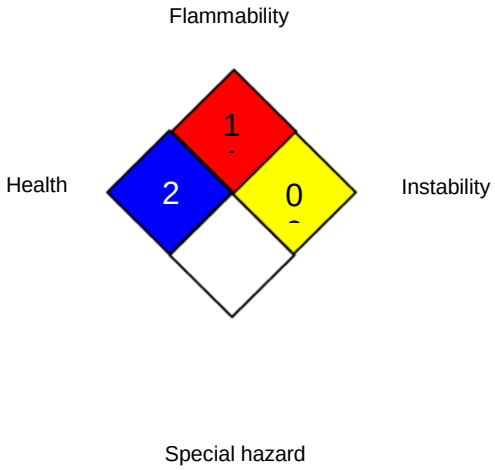
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

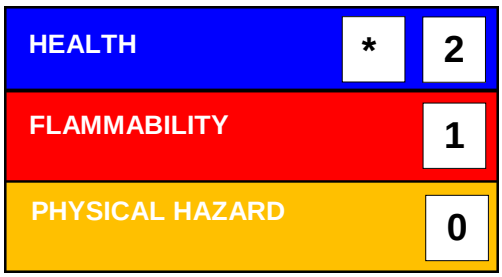
SECTION 16. OTHER INFORMATION

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)
ACGIH / 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 re-

sponse; 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 : 02/07/2023

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.