

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version Revision Date: SDS Number: Date of last issue: 01/14/2022
4.0 10/04/2023 215000008379 Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : NAUGALUBE® PANA FLAKE

Product code : 000000000058318859

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 : Chemical intermediate

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

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

Combustible dust

Acute toxicity (Oral) : Category 4

Skin sensitization : Sub-category 1B

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

GHS label elements

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

Hazard pictograms :

Signal Word : Warning

Hazard Statements : May form combustible dust concentrations in air.
Harmful if swallowed.
May cause an allergic skin reaction.
May cause damage to organs (Blood, Kidney) through prolonged or repeated exposure if swallowed.

Precautionary Statements : **Prevention:**
Do not breathe dust.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves.
Response:
IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
IF ON SKIN: Wash with plenty of soap and water.
Get medical advice/ attention if you feel unwell.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance
Substance name : phenyl alpha naphthylamine

Components

Chemical name	CAS-No.	Concentration (% w/w)
N-1-naphthylaniline	90-30-2	>= 90 - <= 100

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

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version Revision Date: SDS Number: Date of last issue: 01/14/2022
4.0 10/04/2023 215000008379 Country / Language: US / EN

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
- 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.
- 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.
Remove contaminated clothing and shoes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Get medical attention if symptoms appear.
- If swallowed : Rinse mouth with water.
Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Give small amounts of water to drink.
Stop if the exposed person feels sick as vomiting may be dangerous.
If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.
If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
Never give anything by mouth to an unconscious person.
If unconscious, place in recovery position and get medical attention immediately.
Maintain open airway.
Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed

- Symptoms : Acute overexposure to this product may cause dizziness, headache, drowsiness, malaise, abdominal pain.
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

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 21500008379 Date of last issue: 01/14/2022
Country / Language: US / EN

- 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).
- Effects : Harmful if swallowed.
May cause an allergic skin reaction.
May cause damage to organs through prolonged or repeated exposure if swallowed.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician : 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 contraindicated (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.
- The exposed person may need to be kept under medical surveillance for 48 hours.
In case of inhalation of decomposition products in a fire, symptoms may be delayed.
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
Fine powder forms flammable and explosive mixtures in air.

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 21500008379 Date of last issue: 01/14/2022
Country / Language: US / EN

Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Nitrogen oxides (NO_x)

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.
Move containers from fire if this can be done without risk.
Cool closed containers exposed to fire with water.
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.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

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.
Keep unnecessary and unprotected personnel from entering.
Remove all sources of ignition.
Avoid dust formation.
Ensure adequate ventilation.
Avoid breathing dust.
Use personal protective equipment.

Environmental precautions : Do not flush into surface water or sanitary sewer system.
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 : Move containers from spill area.
Take up mechanically.
Use explosion-proof electrical equipment.
Use approved industrial vacuum cleaner for removal.
Do not create a powder cloud by using a brush or compressed air.
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

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version Revision Date: SDS Number: Date of last issue: 01/14/2022
4.0 10/04/2023 215000008379 Country / Language: US / EN

- Advice on protection against fire and explosion : Avoid dust formation.
Provide appropriate exhaust ventilation at places where dust is formed.
- Advice on safe handling : Do not breathe vapors/dust.
Avoid contact with skin and eyes.
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.
Use only with adequate ventilation.
Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.
Persons with a history of skin sensitization to this product should not be employed in any process in which this product is used.
- Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame).
Avoid inhalation, ingestion and contact with skin and eyes.
Use only with adequate ventilation.
In case of insufficient ventilation, wear suitable respiratory equipment.
Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.
Electrical equipment should be protected to the appropriate standard.
Take precautionary measures against static discharges.
Empty containers retain product residue; observe all precautions for product.
Do not re-use empty containers.
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.
Use non-sparking tools and equipment. Consult National Fire Protection Association (NFPA) 654 Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids for details on the safe handling and equipment design.
Persons with a history of skin sensitization to this product should not be employed in any process in which this product is used.

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

Conditions for safe storage : Store in accordance with local regulations.
Store in a segregated and approved area.
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 away from heat and sources of ignition.
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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

|| Contains no substances with occupational exposure limit values.

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

Respiratory protection : In case of dust formation particle filter.
NIOSH approved, air-purifying particulate respirator with N-95 filters.
Although no exposure limit has been established for this product, the OSHA PEL for Particulates Not Otherwise Regulated (PNOR) of 15 mg/m³ - total dust, 5 mg/m³ - respirable fraction is recommended. In addition, the ACGIH recommends 3 mg/m³ - respirable particles and 10 mg/m³ - inhalable particles for Particles (insoluble or poorly soluble) Not Otherwise Specified (PNOS).

Hand protection

Material : Nitrile rubber - NBR

Material : Polyvinyl chloride - PVC

Remarks : Permeation resistant gloves.

Eye protection : Tightly fitting safety goggles

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.

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

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 : granular

Physical state : solid

Color : light brown, to, violet

Odor : No data available

Odor Threshold : No data available

pH : Not applicable

Melting point/range : 131 °F / 55 °C

Boiling point/boiling range : Not applicable

Flash point : 417 °F / 214 °C

Evaporation rate : No data available

Flammability (solid, gas) : May form combustible dust concentrations in air.

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 : Not applicable

Relative vapor density : No data available

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

Relative density : No data available

Density : 1.23 g/cm³

Solubility(ies)
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Ignition temperature : No data available

Decomposition temperature : No data available

Self-Accelerating decomposition temperature (SADT) : No data available

Viscosity
Viscosity, kinematic : Not applicable

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is chemically stable.

Possibility of hazardous reactions : Dust can form an explosive mixture in air.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Strong oxidizing agents
Reducing agents
Acids and bases

Hazardous decomposition products : No decomposition if stored normally.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Eye contact

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version Revision Date: SDS Number: Date of last issue: 01/14/2022
4.0 10/04/2023 215000008379 Country / Language: US / EN

Skin contact
Skin Absorption

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : LD50 (Rat): 1,625 mg/kg

Components:

N-1-naphthylaniline:

Acute oral toxicity : LD50 (Rat, male): 1,625 mg/kg

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

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks : Not classified due to data which are conclusive although insufficient for classification.

Components:

N-1-naphthylaniline:

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

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks : According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

Components:

N-1-naphthylaniline:

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

Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

Respiratory or skin sensitization**Skin sensitization**

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Product:

Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : The product is a skin sensitiser, sub-category 1B.

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

Germ cell mutagenicity

Not classified based on available information.

Product:

Germ cell mutagenicity - Assessment : Not mutagenic in Ames Test.

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.

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

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.

Carcinogenicity

Not classified based on available information.

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

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

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

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

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

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.

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

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Further information

Product:

Remarks : No data available

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

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 21500008379 Date of last issue: 01/14/2022
Country / Language: US / EN

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

Persistence and degradability

Components:

N-1-naphthylaniline:

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

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- : log Pow: 4.28

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

octanol/water

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

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

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

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

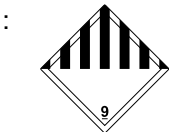
UN/ID No. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(PHENYL-1-NAPHTHYLAMINE)
Class : 9
Packing group : III
Labels : 9

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN



Packing instruction (cargo aircraft) : 956 : 400.00 KG
Packing instruction (passenger aircraft) : 956 : 400.00 KG
Environmentally hazardous : yes



IMDG-Code

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PHENYL-1-NAPHTHYLAMINE)
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 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s. (PHENYL-1-NAPHTHYLAMINE)
Class : 9
Packing group : III
Labels : 9

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

ERG Code :  171

Marine pollutant : yes



Hazard and Handling Notes.

Environmentally hazardous substance.

Keep separated from foodstuffs

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.

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.

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the 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 : Combustible dust
Acute toxicity (any route of exposure)
Respiratory or skin sensitization
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

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

N-1-naphthylaniline	90-30-2	90 - 100
aniline	62-53-3	< 0.1
1-naphthylamine	134-32-7	< 0.1
2-naphthylamine	91-59-8	< 0.01

Pennsylvania Right To Know

N-1-naphthylaniline	90-30-2	90 - 100
aniline	62-53-3	< 0.1
1-naphthylamine	134-32-7	< 0.1

California Prop. 65

WARNING: This product can expose you to chemicals including aniline, 1-naphthylamine, 2-naphthylamine, which is/are known to the State of California to cause cancer, and toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Any chemical(s) listed above which do not appear elsewhere on this SDS are contained in this product at concentrations below 0.01%.

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

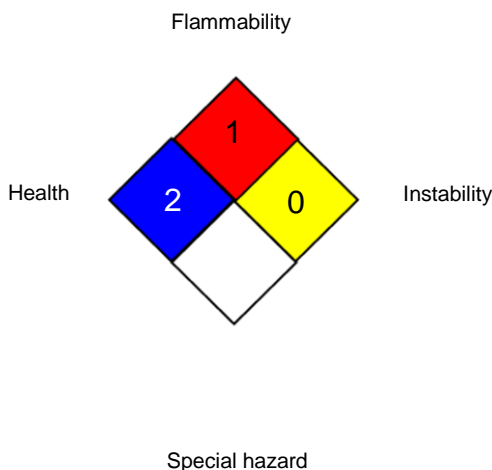
SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version 4.0 Revision Date: 10/04/2023 SDS Number: 215000008379 Date of last issue: 01/14/2022
Country / Language: US / EN

NFPA 704:



HMIS® IV:

HEALTH	*	3
FLAMMABILITY		1
PHYSICAL HAZARD		0

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

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

SAFETY DATA SHEET

NAUGALUBE® PANA FLAKE



Version	Revision Date:	SDS Number:	Date of last issue: 01/14/2022
4.0	10/04/2023	215000008379	Country / Language: US / EN

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 : 10/04/2023

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.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.