ARTDESHINE CLARITY

ARTDESHINE PTE LTD

SECTION 1 Identification of the substance / mixture and of the company / undertaking

1.1. Product Identifier

Product name: ARTDESHINE CLARITY
Synonyms: Not Available
Chemical formula: Not Applicable
Other means of identification: UFI:KH10-F03N-D000-YMPS

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: AUTOMOTIVE POLISHES. Use according to manufacturer's directions.
Uses advised against: No specific uses advised against are identified.

1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	**ARTDESHINE PTE LTD**
Address	7 SOON LEE ST, #01-40 Singapore 627608 Singapore
Telephone	+65 81283734
Fax	Not Available
Website	www.artdeshine.co
Email	hello@artdeshine.co

1.4. Emergency telephone number

Association / Organisation	**ARTDESHINE PTE LTD**	**CHEMWATCH EMERGENCY RESPONSE**
Emergency telephone numbers	+65 81283734 (Mon-Fri 1pm-8pm)	+49 32 211121704
Other emergency telephone numbers	Not Available	+61 3 9573 3188

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

NFPA 704 diamond

Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments [1]	H304 - Aspiration Hazard Category 1, H315 - Skin Corrosion/Irritation Category 2, H317 - Sensitisation (Skin) Category 1, H318 - Serious Eye Damage/Eye Irritation Category 1, H335 - Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, H336 - Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, H351 - Carcinogenicity Category 2, H372 - Specific Target Organ Toxicity - Repeated Exposure Category 1
Legend:	*1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI*

2.2. Label elements

Hazard pictogram(s)

Signal word: **Danger**

Hazard statement(s)

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H351: Suspected of causing cancer.
H372: Causes damage to organs through prolonged or repeated exposure.

Supplementary statement(s)

Not Applicable

Page 1 continued...

Precautionary statement(s) Prevention

P201: Obtain special instructions before use.
P260: Do not breathe mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.

Precautionary statement(s) Response

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.
P331: Do NOT induce vomiting.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary statement(s) Storage

P405: Store locked up.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501: Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

2.3. Other hazards

naphtha petroleum, heavy, hydrotreated: Listed in the Europe Regulation (EU) 2018/1881 Specific Requirements for Endocrine Disruptors

SECTION 3 Composition / information on ingredients

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1.CAS No 2.EC No 3.Index No 4.REACH No	**%[weight]**	**Name**	**Classification according to regulation (EC) No 1272/2008 [CLP] and amendments**	**SCL / M-Factor**	**Nanoform Particle Characteristics**
1.12001-26-2 2.310-127-6 3.Not Available 4.Not Available	<30	mica	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3 , Specific Target Organ Toxicity - Repeated Exposure Category 1; H315, H319, H335, H372 [1]	Not Available	Not Available
1.64742-48-9. 2.265-150-3 3.649-327-00-6 4.01-2119486659-16-XXXX	<25	naphtha petroleum, heavy, hydrotreated **[e]**	Flammable Liquids Category 3, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Aspiration Hazard Category 1; H226, H336, H304, EUH066 [1]	Not Available	Not Available
1.102-71-6 2.203-049-8 3.Not Available 4.01-2119486482-31-XXXX	<5	triethanolamine	Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 1, Sensitisation (Skin) Category 1, Carcinogenicity Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3; H315, H318, H317, H351, H335 [1]	Not Available	Not Available
Not Available	balance	Ingredients determined not to be hazardous	Not Applicable	Not Applicable	Not Available

Legend: *1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties*

SECTION 4 First aid measures

4.1. Description of first aid measures

Eye Contact

If this product comes in contact with the eyes:
– Immediately hold eyelids apart and flush the eye continuously with running water.
– Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
– Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
– Transport to hospital or doctor without delay.
– Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact

If skin contact occurs:
– Immediately remove all contaminated clothing, including footwear.
– Flush skin and hair with running water (and soap if available).
– Seek medical attention in event of irritation.

Inhalation

– If fumes or combustion products are inhaled remove from contaminated area.
– Lay patient down. Keep warm and rested.
– Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
– Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
– Transport to hospital, or doctor, without delay.

Ingestion

– If swallowed do **NOT** induce vomiting.
– If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
– Observe the patient carefully.
– Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
– Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

Continued...

– Seek medical advice.
– If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.
For petroleum distillates
· In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption - decontamination (induced emesis or lavage) is controversial and should be considered on the merits of each individual case; of course the usual precautions of an endotracheal tube should be considered prior to lavage, to prevent aspiration.
· Individuals intoxicated by petroleum distillates should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function.
· Positive pressure ventilation may be necessary.
· Acute central nervous system signs and symptoms may result from large ingestions of aspiration-induced hypoxia.
· After the initial episode,individuals should be followed for changes in blood variables and the delayed appearance of pulmonary oedema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.
· Gastrointestinal symptoms are usually minor and pathological changes of the liver and kidneys are reported to be uncommon in acute intoxications.
· Chlorinated and non-chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur.Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.
BP America Product Safety & Toxicology Department

SECTION 5 Firefighting measures

5.1. Extinguishing media

– Water spray or fog.
– Foam.
– Dry chemical powder.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility

– Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

5.3. Advice for firefighters

Fire Fighting

– Alert Fire Brigade and tell them location and nature of hazard.
– Wear breathing apparatus plus protective gloves.
– Prevent, by any means available, spillage from entering drains or water courses.

Fire/Explosion Hazard

– Combustible.
– Slight fire hazard when exposed to heat or flame.
– Heating may cause expansion or decomposition leading to violent rupture of containers.

Combustion products include:
carbon dioxide (CO_2)
nitrogen oxides (NOx)
other pyrolysis products typical of burning organic material.
May emit poisonous fumes.
May emit corrosive fumes.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills

– Clean up all spills immediately.
– Avoid contact with skin and eyes.
– Wear impervious gloves and safety goggles.

Major Spills

– Clear area of personnel and move upwind.
– Alert Fire Brigade and tell them location and nature of hazard.
– Wear breathing apparatus plus protective gloves.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling

The conductivity of this material may make it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid.

– Containers, even those that have been emptied, may contain explosive vapours.
– Do NOT cut, drill, grind, weld or perform similar operations on or near containers.

· Electrostatic discharge may be generated during pumping - this may result in fire.
· Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Continued...

· Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec).
– Avoid all personal contact, including inhalation.
– Wear protective clothing when risk of exposure occurs.
– Use in a well-ventilated area.

Fire and explosion protection

See section 5

Other information

– Store in original containers.
– Keep containers securely sealed.
– No smoking, naked lights or ignition sources.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container

100mL HDPE Bottle.
– Polyethylene or polypropylene container.
– Packing as recommended by manufacturer.
– Check all containers are clearly labelled and free from leaks.

Storage incompatibility

– Avoid reaction with oxidising agents, bases and strong reducing agents.
– Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.

Hazard categories in accordance with Regulation (EC) No 1272/2008

Not Available

Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of

Not Available

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
naphtha petroleum, heavy, hydrotreated	Dermal 300 mg/kg bw/day (Systemic, Chronic) Inhalation 1 500 mg/m³ (Systemic, Chronic) Inhalation 837.5 mg/m³ (Local, Chronic) Inhalation 1 286.4 mg/m³ (Systemic, Acute) Inhalation 1 066.67 mg/m³ (Local, Acute) *Dermal 300 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 900 mg/m³ (Systemic, Chronic) ** *Oral 300 mg/kg bw/day (Systemic, Chronic) ** *Inhalation 178.57 mg/m³ (Local, Chronic) ** *Inhalation 1 152 mg/m³ (Systemic, Acute) ** *Inhalation 640 mg/m³ (Local, Acute) **	Not Available
triethanolamine	Dermal 7.5 mg/kg bw/day (Systemic, Chronic) Dermal 140 µg/cm² (Local, Chronic) Inhalation 1 mg/m³ (Local, Chronic) *Dermal 2.66 mg/kg bw/day (Systemic, Chronic) ** *Oral 3.3 mg/kg bw/day (Systemic, Chronic) ** *Dermal 70 µg/cm² (Local, Chronic) ** *Inhalation 0.4 mg/m³ (Local, Chronic) **	0.32 mg/L (Water (Fresh)) 0.032 mg/L (Water - Intermittent release) 5.12 mg/L (Water (Marine)) 1.7 mg/kg sediment dw (Sediment (Fresh Water)) 0.17 mg/kg sediment dw (Sediment (Marine)) 0.151 mg/kg soil dw (Soil) 10 mg/L (STP)

* Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Germany Recommended Exposure Limits - MAK Values	mica	Dust, general threshold limit value (inhalable fraction)	4 mg/m3	Not Available	Not Available	see Section Vf and g
Germany Recommended Exposure Limits - MAK Values	mica	Dust, general threshold limit value (respirable fraction) (biopersistent granular dusts)	0.3 mg/m3	2.4 mg/m3	Not Available	except for ultrafine particles; see Section Vh; see Section Vf; for dusts with a density of 1 g/cm³; Preg gr: C; Carc cat: 4
Germany TRGS 900 - Limit Values for the Workplace Atmosphere	naphtha petroleum, heavy, hydrotreated	Mineralöle (Erdöl), stark raffiniert	5 mg/m3	Not Available	Not Available	Not Available
Germany TRGS 900 - Limit Values for the Workplace Atmosphere	naphtha petroleum, heavy, hydrotreated	Weißes Mineralöl (Erdöl)	5 mg/m3	Not Available	Not Available	(Limit value mg/m3 (A))
Germany Recommended Exposure Limits - MAK Values	naphtha petroleum, heavy, hydrotreated	Naphtha (petroleum) hydrotreated, heavy	50 ppm / 300 mg/m3	600 mg/m3 / 100 ppm	Not Available	see Section Xc; Preg gr: D
Germany TRGS 900 - Limit Values for the Workplace Atmosphere	triethanolamine	2,2',2''-Nitrilotriethanol	1 mg/m3	Not Available	Not Available	(Limit value mg/m3 (E))

Continued...

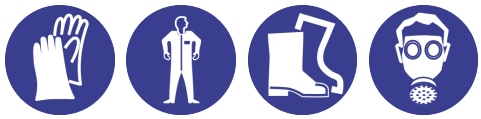
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Germany Recommended Exposure Limits - MAK Values	triethanolamine	Triethanolamine (inhalable fraction)	1 mg/m3	1 mg/m3	Not Available	see Section Xc; Preg gr: C

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
The basic types of engineering controls are:
Process controls which involve changing the way a job activity or process is done to reduce the risk.

8.2.2. Personal protection



Eye and face protection

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

Skin protection

See Hand protection below

Hands/feet protection

- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber

NOTE:

- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

Body protection

See Other protection below

Other protection

- Overalls.
- P.V.C apron.
- Barrier cream.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: White paste; mixes with water.

Physical state	Free-flowing Paste	**Relative density (Water = 1)**	1.1
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Applicable
pH (as supplied)	Not Available	**Decomposition temperature (°C)**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	Not Available
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	Not Applicable	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Applicable	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Applicable	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Applicable	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Miscible	**pH as a solution (1%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available
Nanoform Solubility	Not Available	**Nanoform Particle Characteristics**	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

10.1.Reactivity: See section 7.2

10.2. Chemical stability :

- Unstable in the presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Continued...

10.3. Possibility of hazardous reactions : See section 7.2
10.4. Conditions to avoid : See section 7.2
10.5. Incompatible materials : See section 7.2
10.6. Hazardous decomposition products : See section 5.3

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Inhaled

The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.
Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.
Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor.
Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.
Nerve damage can be caused by some non-ring hydrocarbons. Symptoms are temporary, and include weakness, tremors, increased saliva, some convulsions, excessive tears with discolouration and inco-ordination lasting up to 24 hours.
Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.

Ingestion

Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)
Accidental ingestion of the material may be damaging to the health of the individual.
Isoparaffinic hydrocarbons cause temporary lethargy, weakness, inco-ordination and diarrhoea.
Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions.

Skin Contact

This material can cause inflammation of the skin on contact in some persons.
Skin exposure to isoparaffins may produce slight to moderate irritation in animals and humans. Rare sensitisation reactions in humans have occurred.
Open cuts, abraded or irritated skin should not be exposed to this material
Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye

If applied to the eyes, this material causes severe eye damage.
Instillation of isoparaffins into rabbit eyes produces only slight irritation.
Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged. Aromatic species can cause irritation and excessive tear secretion.

Chronic

There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.
Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems.
Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.
Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.
Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin.
Long term exposure to vermiculite usually causes few hazards in low concentration and does not cause cancer. Over years, scarring of the lungs may develop; however tuberculosis does not occur.
Overexposure to the breathable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity and chest infections. Repeated exposures in the workplace to high levels of fine-divided dusts may produce a condition known as pneumoconiosis, which is the lodgement of any inhaled dusts in the lung, irrespective of the effect.

ARTDESHINE CLARITY	**TOXICITY** / **IRRITATION** Not Available / Not Available
mica	**TOXICITY** / **IRRITATION** Not Available / Not Available
naphtha petroleum, heavy, hydrotreated	**TOXICITY** / **IRRITATION** Dermal (rabbit) LD50: >1900 mg/kg[1] / Eye: no adverse effect observed (not irritating)[1] Inhalation(Rat) LC50: >4.42 mg/L4h[1] / Skin: adverse effect observed (irritating)[1] Oral (Rat) LD50: >4500 mg/kg[1] /
triethanolamine	**TOXICITY** / **IRRITATION** dermal (rat) LD50: >16000 mg/kg[2] / Eye (rabbit): 0.1 ml - Oral (Rabbit) LD50; 2200 mg/kg[2] / Eye (rabbit): 10 mg - mild / Eye (rabbit): 5.62 mg - SEVERE / Skin (human): 15 mg/3d (int)-mild / Skin (rabbit): 4 h occluded no irritation * / Skin (rabbit): 560 mg/24 hr- mild minor iritis, minor conjunctival irritation with significant discharge; no corneal injury *

Legend: *1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted*

Continued...

from RTECS - Register of Toxic Effect of chemical Substances

MICA

No significant acute toxicological data identified in literature search.

NAPHTHA PETROLEUM, HEAVY, HYDROTREATED

Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins.
The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet.
For petroleum: This product contains benzene, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains ethyl benzene and naphthalene, from which animal testing shows evidence of tumour formation.

TRIETHANOLAMINE

Lachrymation, diarrhoea, convulsions, urinary tract changes, changes in bladder weight, changes in testicular weight, changes in thymus weight, changes in liver weight, dermatitis after systemic exposure, kidney, ureter, bladder tumours recorded. Equivocal tumourigen by RTECS criteria. Dermal rabbit value quoted above is for occluded patch in male or female animals * Union Carbide
The following information refers to contact allergens as a group and may not be specific to this product.
Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
Overexposure to most of these materials may cause adverse health effects.
Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient.
There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing.
Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain.
The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
Studies done show that triethanolamine is of low toxicity following high dose exposure by swallowing, skin contact or inhalation. It has not been shown to cause cancer, genetic defects, reproductive or developmental toxicity.
A Cosmetic Ingredient Review (CIR) expert panel conducted a review of triethanolamine-containing personal care products
The panel was concerned with the levels of free diethanolamine that could be present as an impurity in TEA or TEA-containing ingredients. The panel stated that the amount of free diethanolamine available must be limited to the present practices of use and concentration of diethanolamine.
The Panel concluded that TEA and 31 related TEA-containing ingredients, are safe when formulated to be nonirritating and when the levels of free diethanolamine do not exceed the prescribed levels. These ingredients should not be used in cosmetic products in which N-nitroso compounds can be formed.
Dermal carcinogenicity studies performed by the NTP on TEA reported equivocal evidence of carcinogenic activity in male mice based on the occurrence of liver hemangiosarcoma, some evidence of carcinogenic activity in female mice based on increased incidences of hepatocellular adenoma, and equivocal evidence of carcinogenic activity in male rats based on a marginal increase in the incidence of renal tubule cell adenoma.
The substance is classified by IARC as Group 3:
NOT classifiable as to its carcinogenicity to humans.
Evidence of carcinogenicity may be inadequate or limited in animal testing.
NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.

MICA & TRIETHANOLAMINE

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.

Acute Toxicity	✗	**Carcinogenicity**	✓
Skin Irritation/Corrosion	✓	**Reproductivity**	✗
Serious Eye Damage/Irritation	✓	**STOT - Single Exposure**	✓
Respiratory or Skin sensitisation	✓	**STOT - Repeated Exposure**	✓
Mutagenicity	✗	**Aspiration Hazard**	✓

Legend:
✗ *– Data either not available or does not fill the criteria for classification*
✓ *– Data available to make classification*

11.2 Information on other hazards

11.2.1. Endocrine Disruption Properties

Many chemicals may mimic or interfere with the body s hormones, known as the endocrine system. Endocrine disruptors are chemicals that can interfere with endocrine (or hormonal) systems.
Endocrine disruptors interfere with the synthesis, secretion, transport, binding, action, or elimination of natural hormones in the body. Any system in the body controlled by hormones can be derailed by hormone disruptors. Specifically, endocrine disruptors may be associated with the development of learning disabilities, deformations of the body various cancers and sexual development problems.
Endocrine disrupting chemicals cause adverse effects in animals. But limited scientific information exists on potential health problems in humans. Because people are typically exposed to multiple endocrine disruptors at the same time, assessing public health effects is difficult.

11.2.2. Other Information

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity

ARTDESHINE CLARITY

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

mica

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

Continued...

naphtha petroleum, heavy, hydrotreated	

Endpoint	Test Duration (hr)	Species	Value	Source
EC50(ECx)	48h	Crustacea	>0.002mg/l	2
EC50	96h	Algae or other aquatic plants	64mg/l	2
EC50	48h	Crustacea	>0.002mg/l	2

triethanolamine

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	11800mg/l	2
BCF	1008h	Fish	<0.4	7
EC50	72h	Algae or other aquatic plants	>107<260mg/l	2
EC50	48h	Crustacea	565.2-658.3mg/l	4
NOEC(ECx)	Not Available	Fish	>1mg/l	2
EC50	96h	Algae or other aquatic plants	169mg/l	1

Legend: *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

When released in the environment, alkanes don't undergo rapid biodegradation, because they have no functional groups (like hydroxyl or carbonyl) that are needed by most organisms in order to metabolize the compound.
However, some bacteria can metabolise some alkanes (especially those linear and short), by oxidizing the terminal carbon atom. The product is an alcohol, that could be next oxidised to an aldehyde, and finally to a carboxylic acid.
For petroleum distillates:
Environmental fate:
When petroleum substances are released into the environment, four major fate processes will take place: dissolution in water, volatilization, biodegradation and adsorption. These processes will cause changes in the composition of these UVCB substances. In the case of spills on land or water surfaces, photodegradation-another fate process-can also be significant.
For Hydrocarbons: log Kow 1. BCF~10.
For Aromatics: log Kow 2-3.
Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.).
DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
triethanolamine	LOW	LOW

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
triethanolamine	LOW (BCF = 3.9)

12.4. Mobility in soil

Ingredient	Mobility
triethanolamine	LOW (KOC = 10)

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT	✗	✗	✗
vPvB	✗	✗	✗

PBT Criteria fulfilled?	No
vPvB	No

12.6. Endocrine Disruption Properties

The evidence linking adverse effects to endocrine disruptors is more compelling in the environment than it is in humans. Endocrine distruptors profoundly alter reproductive physiology of ecosystems and ultimately impact entire populations. Some endocrine-disrupting chemicals are slow to break-down in the environment. That characteristic makes them potentially hazardous over long periods of time. Some well established adverse effects of endocrine disruptors in various wildlife species include; eggshell-thinning, displayed of characteristics of the opposite sex and impaired reproductive development. Other adverse changes in wildlife species that have been suggested, but not proven include; reproductive abnormalities, immune dysfunction and skeletal deformaties.

12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal

- Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

Otherwise:

- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Recycle wherever possible or consult manufacturer for recycling options.

Continued...

– Consult State Land Waste Authority for disposal.
– Bury or incinerate residue at an approved site.

Waste treatment options

Not Available

Sewage disposal options

Not Available

SECTION 14 Transport information

Labels Required

Marine Pollutant

NO

Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number: **Not Applicable**
14.2. UN proper shipping name: **Not Applicable**
14.3. Transport hazard class(es):
Class: **Not Applicable**
Subrisk: **Not Applicable**
14.4. Packing group: **Not Applicable**
14.5. Environmental hazard: **Not Applicable**
14.6. Special precautions for user:
Hazard identification (Kemler): **Not Applicable**
Classification code: **Not Applicable**
Hazard Label: **Not Applicable**
Special provisions: **Not Applicable**
Limited quantity: **Not Applicable**
Tunnel Restriction Code: **Not Applicable**

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number: **Not Applicable**
14.2. UN proper shipping name: **Not Applicable**
14.3. Transport hazard class(es):
ICAO/IATA Class : **Not Applicable**
ICAO / IATA Subrisk : **Not Applicable**
ERG Code: **Not Applicable**
14.4. Packing group: **Not Applicable**
14.5. Environmental hazard: **Not Applicable**
14.6. Special precautions for user:
Special provisions: **Not Applicable**
Cargo Only Packing Instructions: **Not Applicable**
Cargo Only Maximum Qty / Pack: **Not Applicable**
Passenger and Cargo Packing Instructions: **Not Applicable**
Passenger and Cargo Maximum Qty / Pack: **Not Applicable**
Passenger and Cargo Limited Quantity Packing Instructions: **Not Applicable**
Passenger and Cargo Limited Maximum Qty / Pack: **Not Applicable**

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number: **Not Applicable**
14.2. UN proper shipping name: **Not Applicable**
14.3. Transport hazard class(es):
IMDG Class : **Not Applicable**
IMDG Subrisk : **Not Applicable**
14.4. Packing group: **Not Applicable**
14.5. Environmental hazard: **Not Applicable**
14.6. Special precautions for user:
EMS Number: **Not Applicable**
Special provisions: **Not Applicable**
Limited Quantities: **Not Applicable**

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number: **Not Applicable**
14.2. UN proper shipping name: **Not Applicable**
14.3. Transport hazard class(es):
Not Applicable: **Not Applicable**
14.4. Packing group: **Not Applicable**
14.5. Environmental hazard: **Not Applicable**
14.6. Special precautions for user:
Classification code: **Not Applicable**
Special provisions: **Not Applicable**
Limited quantity: **Not Applicable**

Continued...

Equipment required: **Not Applicable**
Fire cones number: **Not Applicable**

14.7. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.8. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
mica	Not Available
naphtha petroleum, heavy, hydrotreated	Not Available
triethanolamine	Not Available

14.9. Transport in bulk in accordance with the ICG Code

Product name	Ship Type
mica	Not Available
naphtha petroleum, heavy, hydrotreated	Not Available
triethanolamine	Not Available

SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

mica is found on the following regulatory lists

– European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
– Germany Recommended Exposure Limits - MAK Values
– Germany Recommended Exposure Limits - MAK Values - Carcinogens
– Germany Recommended Exposure Limits - MAK Values - Pregnancy Risk Group Classifications & Germ Cell Mutagens
– International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

naphtha petroleum, heavy, hydrotreated is found on the following regulatory lists

– Chemical Footprint Project - Chemicals of High Concern List
– EU REACH Regulation (EC) No 1907/2006 - Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
– EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 2) Carcinogens: Category 1 B
– EU REACH Regulation (EC) No 1907/2006 - Annex XVII (Appendix 4) Germ cell mutagens: Category 1 B
– Europe EC Inventory
– European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
– European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI
– Germany Classification of Substances Hazardous to Waters (WGK)
– Germany Recommended Exposure Limits - MAK Values
– Germany Recommended Exposure Limits - MAK Values - Pregnancy Risk Group Classifications & Germ Cell Mutagens
– Germany TRGS 900 - Limit Values for the Workplace Atmosphere
– International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

triethanolamine is found on the following regulatory lists

– EU European Chemicals Agency (ECHA) Community Rolling Action Plan (CoRAP) List of Substances
– Europe EC Inventory
– European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
– Germany Classification of Substances Hazardous to Waters (WGK)
– Germany Recommended Exposure Limits - MAK Values
– Germany Recommended Exposure Limits - MAK Values - Pregnancy Risk Group Classifications & Germ Cell Mutagens
– Germany TRGS 900 - Limit Values for the Workplace Atmosphere
– International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

Information according to 2012/18/EU (Seveso III):

Seveso Category: Not Available

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.3. Classification of Substances and Mixtures into Water Hazard Classes

Preparation is WGK 2

Name	WGK	Score	Source
MICA	1	4	Calculated
NAPHTHA PETROLEUM, HEAVY, HYDROTREATED	1		From Regulation
TRIETHANOLAMINE	1		From Regulation

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (mica; naphtha petroleum, heavy, hydrotreated; triethanolamine)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (mica)
Korea - KECI	Yes
New Zealand - NZIoC	Yes

Continued...

National Inventory	Status
Philippines - PICCS	Yes
USA - TSCA	No (mica)
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	*Yes = All CAS declared ingredients are on the inventory* *No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.*

SECTION 16 Other information

Revision Date: 01/11/2021
Initial Date: 01/11/2021

Full text Risk and Hazard codes

H224: Extremely flammable liquid and vapour.
H226: Flammable liquid and vapour.
H290: May be corrosive to metals.
H302: Harmful if swallowed.
H312: Harmful in contact with skin.
H314: Causes severe skin burns and eye damage.
H319: Causes serious eye irritation.
H331: Toxic if inhaled.
H332: Harmful if inhaled.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340: May cause genetic defects.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
H411: Toxic to aquatic life with long lasting effects.

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:
EN 166 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and micro-organisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices

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