Safety Data Sheet
DUNAPOL™ C096 L

Safety Data Sheet dated 1/13/2021, version 1

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: DUNAPOL™ C096 L

Other means of identification:

Trade code: 41017

Recommended use of the chemical and restrictions on use

Product type:

Based polyol mixture

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company:

DUNA-USA Inc.

4210 FM 1405 Baytown, Texas 77523 - U.S.A.

Michigan Plant: 5900 West 6th street Ludington, Michigan 49431

www.dunagroup.com/usa

Competent person responsible for the safety data sheet:

info@dunausa.com

Emergency phone number

DUNA-USA Inc

t:+1 281-383-3862

2. HAZARD(S) IDENTIFICATION

Classification of the chemical

Warning, Repr. 2, Suspected of damaging fertility or the unborn child.

Label elements

Hazard pictograms:

Warning

Hazard statements:

H361 Suspected of damaging fertility or the unborn child.

Precautionary statements:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Hazards not otherwise classified identified during the classification process:

None

Ingredient(s) with unknown acute toxicity:

None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

Qty	Name	Ident. Number	Classification
>= 15% - < 20%	Glycerol, propoxylated	CAS: 25791-96-2	A.1/4/Oral Acute Tox. 4 H302
>= 5% - < 7%	Tris(1-chloro-2-propyl) phosphate	CAS: 13674-84-5	A.1/4/Dermal Acute Tox. 4 H312 A.1/4/Oral Acute Tox. 4 H302
>= 3% - < 5%	Triethyl phosphate	CAS: 78-40-0	A.1/4/Oral Acute Tox. 4 H302 A.3/2A Eye Irrit. 2A H319
>= 0.1% - < 0.25%	Ethylhexanoic, 2-, potassium salt	CAS: 3164-85-0	A.2/2 Skin Irrit. 2 H315 A.3/1 Eye Dam. 1 H318 A.7/2 Repr. 2 H361d

4. FIRST-AID MEASURES

Description of necessary measures

In case of skin contact:

Immediately take off all contaminated clothing and dispose off safely.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
As quickly as possible, remove contaminated clothing, shoes and leather goods (e.g. watchbrands, belts). Quickly and gently blot or brush away excess chemical. Immediately wash with lukewarm, gently flowing water and non-abrasive soap for 15-20 minuntes.
Completely decontaminate clothing, shoes and leather goods before reuse or discard. If skin irritation or rush occurs get medical advice/attention.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 5 minutes, or until the chemical is removed, while holding the eyelid(s) open. If irritation persist, repeat flushing. Obtain medical attention immediately.

In case of ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
If swallowed, call a POISON CENTER or doctor/physician.
Never give anything by mouth if victim is rapidly losing consciousness or is unconscious or convulsing. Do not induce vimiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Quickly transport victim to an emergency care facility.

In case of inhalation:

Remove casualty to fresh air and keep warm and at rest.
If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If exposed or concerned: Get medical advice/attention. If breathing has stopped, trained personnel should begin artificial respiration (AR) or, if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Immediately obtain medical attention and transport victim to an emergency care facility.

Most important symptoms/effects, acute and delayed
None
Indication of immediate medical attention and special treatment needed
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
Nothing specific.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:
Water.
Carbon dioxide (CO2).
Unsuitable extinguishing media:
None in particular.
Specific hazards arising from the chemical
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
Hazardous combustion products:
None
Explosive properties: Not explosive
Oxidizing properties: Not oxydant
Special protective equipment and precautions for fire-fighters
Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.
Methods and materials for containment and cleaning up
Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Do not use on extensive surface areas in premises where there are occupants.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
See also section 8 for recommended protective equipment.
Advice on general occupational hygiene:
Contamined clothing should be changed before entering eating areas.
Do not eat or drink or smoke while working.
Conditions for safe storage, including any incompatibilities
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.
Storage temperature:
Store at ambient temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No occupational exposure limit available

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

Appropriate engineering controls:

None

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

General hygiene conditions

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Value	Method:	Notes:
Appearance and colour:	Liquid	--	--
Odour:	Light	--	--
Odour threshold:	N.A.	--	--
pH:	N.A.	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	Not available	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour density:	N.A.	--	--
Flash point:	No	--	--
Evaporation rate:	N.A.	--	--
Vapour pressure:	Not available	--	--
Relative density:	Not available	--	--
Solubility in water:	Partial	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	Not available	--	--
Auto-ignition temperature:	Not pyrophoric	--	--
Decomposition temperature:	Not available	--	--
Viscosity:	Not available	--	--
Miscibility:	N.A.	--	--

Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

10. STABILITY AND REACTIVITY

Reactivity
Stable under normal conditions
Chemical stability
Stable under normal conditions
Possibility of hazardous reactions
Conditions to avoid
Stable under normal conditions.
Incompatible materials
None in particular.
Hazardous decomposition products
None.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Toxicological information of the product:
DUNAPOL™ C096 L
a) acute toxicity
Not classified
Based on available data, the classification criteria are not met
b) skin corrosion/irritation
Not classified
Based on available data, the classification criteria are not met
c) serious eye damage/irritation
Not classified
Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met
g) Reproductive toxicity/toxicity to fertility
The product is classified: Repr. 2 H361
h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met
i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met
j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met
Toxicological information of the main substances found in the product:
Glycerol, propoxylated - CAS: 25791-96-2
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 1002.5 mg/kg - Source: OECD TG 401

Test: LD50 - Route: Dermal - Species: Rat > 2000 mg/kg - Source: OECD TG 402
b) skin corrosion/irritation:
Species: Rabbit No - Source: OECD TG 404
c) serious eye damage/irritation:
Species: Rabbit No - Source: OECD TG 405
d) respiratory or skin sensitisation:
Species: Guinea pig No - Source: OECD TG 406
e) germ cell mutagenicity:
Test: Mutagenesis - Species: Salmonella Typhimurium -Result: Negative - Source: OECD TG 471 (Ames Test)
Test: Mutagenesis -Result: Negative - Source: OECD TG 473
Test: Mutagenesis -Result: Negative - Source: OECD TG 476
g) Reproductive toxicity/toxicity to fertility:
No data available for the product
h) STOT-single exposure:
No data available for the product
i) STOT-repeated exposure:
No data available for the product
j) aspiration hazard:
No data available for the product
Tris(1-chloro-2-propyl)phosphate - CAS: 13674-84-5
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 1500 mg/kg
Test: LD50 - Route: Dermal - Species: Rabbit = 1230 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 4.6 mg/l - Duration: 4h
b) skin corrosion/irritation:
No data available for the product
c) serious eye damage/irritation:
No data available for the product
d) respiratory or skin sensitisation:
No data available for the product
e) germ cell mutagenicity:
No data available for the product
f) carcinogenicity:
Based on available data, the classification criteria are not met
g) Reproductive toxicity/toxicity to fertility:
No data available for the product
h) STOT-single exposure:
No data available for the product
i) STOT-repeated exposure:
No data available for the product
j) aspiration hazard:
No data available for the product
Triethyl phosphate - CAS: 78-40-0
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 1165 mg/kg
b) skin corrosion/irritation:
Test: Skin Irritant - No data available for the product
c) serious eye damage/irritation:
Test: Eye Irritant - Result: Positive - Source: Deduced from hazard classification of the substance
d) respiratory or skin sensitisation:
No data available for the product
e) germ cell mutagenicity:
No data available for the product
f) carcinogenicity:

Based on available data, the classification criteria are not met

g) Reproductive toxicity/toxicity to fertility:
No data available for the product

h) STOT-single exposure:
No data available for the product

i) STOT-repeated exposure:
No data available for the product

j) aspiration hazard:
No data available for the product

Ethylhexanoic, 2-, potassium salt - CAS: 3164-85-0

a) acute toxicity:
No data available for the product

b) skin corrosion/irritation:
Test: Skin Irritant - Result: Positive - Source: Deduced from hazard classification of the substance

c) serious eye damage/irritation:
Test: Eye Corrosive - Result: Positive - Source: Deduced from hazard classification of the substance

d) respiratory or skin sensitisation:
No data available for the product

e) germ cell mutagenicity:
No data available for the product

f) carcinogenicity:
No data available for the product

h) STOT-single exposure:
No data available for the product

i) STOT-repeated exposure:
No data available for the product

j) aspiration hazard:
No data available for the product

Substance(s) listed on the NTP report on Carcinogens:
None.

Substance(s) listed on the IARC Monographs:
None.

Substance(s) listed as OSHA Carcinogen(s):
None.

Substance(s) listed as NIOSH Carcinogen(s):
None.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Adopt good working practices, so that the product is not released into the environment.

DUNAPOL™ C096 L

Not classified for environmental hazards

Based on available data, the classification criteria are not met

Glycerol, propoxylated - CAS: 25791-96-2

a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish - Leuciscus Idus > 1000 mg/l - Duration h: 96 - Notes: OECD TG 203
Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48 - Notes: OECD TG 202
Endpoint: LC50 - Species: Algae - Desmodesmus subcapitata > 100 mg/l - Duration h: 96 - Notes: OECD TG 201

b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Daphnia > 10 mg/l - Duration h: 504 - Notes: OECD TG 211

c) Toxicity to microorganism:
Endpoint: IC50 - Species: Activated sludge > 10000 mg/l - Duration h: 3 - Notes: OECD TG 209

Tris(1-chloro-2-propyl)phosphate - CAS: 13674-84-5

a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Algae - Desmodesmus subcapitata = 45 mg/l - Duration h: 72
Endpoint: EC50 - Species: Algae - Pseudokirchnerella subcapitata = 4 mg/l - Duration h: 96
Endpoint: LC50 - Species: Fish - Pimephales promelas = 98 mg/l - Duration h: 96
Endpoint: LC50 - Species: Fish - Leuciscus Idus = 180 mg/l - Duration h: 96
Endpoint: LC50 - Species: Fish - Danio Rerio (zebrafish) = 56.2 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia = 63 mg/l - Duration h: 48

Persistence and degradability

Glycerol, propoxylated - CAS: 25791-96-2
Biodegradability: Inherently biodegradable - Test: Aerobic - Duration: 28 d - %: 1.9 - Notes: Modified SCAS Test
Biodegradability: Non-readily biodegradable - Test: Aerobic - Duration: 28 d - %: 40 - Notes: OECD TG 301 B
Biodegradability: Inherently biodegradable - Test: Aerobic - Duration: 28 d - %: 22 - Notes: ISO 5815

Bioaccumulative potential

Glycerol, propoxylated - CAS: 25791-96-2
Test: Log Kow - Partition coefficient n-octanol/water

Mobility in soil

Tris(1-chloro-2-propyl)phosphate - CAS: 13674-84-5
Test: Partition coefficient soil/water 2.59

Triethyl phosphate - CAS: 78-40-0
Test: Partition coefficient soil/water 1.11

Other adverse effects

No data available for the product

13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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

N.A.

Special precautions

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

List of substances included in the TSCA inventory: Tris(1-chloro-2-propyl)phosphate, Triethyl phosphate, Ethylhexanoic, 2-, potassium salt.

List of substances not included in the TSCA inventory: Glycerol, propoxylated.
TSCA listed substances:
Tris(1-chloro-2-propyl)phosphate is listed in TSCA Section 8b, Section 8d HSDR
Triethyl phosphate is listed in TSCA Section 8a - PAIR, Section 8b, Section 8d HSDR
Ethylhexanoic, 2-, potassium salt is listed in TSCA Section 8b.

SARA - Superfund Amendments and Reauthorization Act
Section 302 – Extremely Hazardous Substances: no substances listed.
Section 304 – Hazardous substances: no substances listed.
Section 313 – Toxic chemical list: no substances listed.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
No substances listed.

CAA - Clean Air Act
CAA listed substances:
None.

CWA - Clean Water Act
CWA listed substances:
None.

USA - State specific regulations

California Proposition 65
Substance(s) listed under California Proposition 65:
None.

Massachusetts Right to know
Substance(s) listed under Massachusetts Right to know:
No substances listed.

New Jersey Right to know
Substance(s) listed under New Jersey Right to know:
No substances listed.

Pennsylvania Right to know
Substance(s) listed under Pennsylvania Right to know:
No substances listed.

16. OTHER INFORMATION

Text of phrases referred to under heading 3:
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H361d Suspected of damaging the unborn child.

Safety Data Sheet dated 1/13/2021, version 1
Disclaimer:
The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.
This Safety Data Sheet cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.

DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average