

Material safety data sheet according regulation (EU) 2020/878
Version 5 – Date: 21/10/2021 (replaces version 4 – 06/2019)**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Commercial name Nevada CLEAN-L
Our code TRCLEAN1 - TRCLEAN5 - TRCLEAN10

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

Industrial sector Refrigeration, Air-conditioning and Automotive.
Relevant identified uses Descaling liquid with detergent action ready to use for aluminium heat exchangers.
Application Industrial and professional.

1.3. Details of the supplier of the safety data sheet

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1.4. Emergency telephone number

Mariel Srl +39 0322 838319 **Mon/Fri: 8.30-12.30 / 13.30-17.30**
CAV-CNIT Anti-Poison (toxicological) National Information Centre +39 0382 24444 **Hours: 24 h / 24 h**

SECTION 2. Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) no. 1272/2008 (CLP) Not classified.

The product, however, contains dangerous substances in a concentration such as to be declared in section no. 3, requires a safety data sheet with adequate information, in accordance with Regulation (EU) 2020/878 (which amends Annex II of Regulation (EC) No. 1907/2006).

2.2. Elements of the label

Dangerous pictogram ---
Signal word ---
Hazard statements (H) ---
Hazard statements (H) ---
Other information Contains phosphoric acid

2.3. Other dangers

The mixture is not included in Annex XIII of the Regulation (EC) no. 1907/2006.

SECTION 3. Composition/information on ingredients**3.2. Mixtures**

Substance name	%	EU Index No.	EC No.	CAS No.	REACH No.	Classification Reg. (EC) no. 1272/2008 (CLP)
Phosphoric acid	3 ≤ x < 3,5	015-011-00-6	231-633-2	7664-38-2	01-2119485924-24-XXXX	Met. Corr. 1, H290 Acute Tox. 2, H302 Skin Corr. 1A, H314 Eye Dam. 1, H318

The full text of the hazard statements (H) is given in section 16 of the sheet.

SECTION 4. First aid measures



General information: If the person is unconscious, place it in the recovery position and get immediately medical attention. Do not give anything to an unconscious person. If breathing turned to irregular, administer oxygen. If breathing stopped, administer artificial respiration. If symptoms persist, call a physician.

4.1. Description of first aid measures

Inhalation	Remove the subject from the contaminated area and exposure him to fresh air. In case of difficult breathing, administer oxygen. Obtain immediate medical attention.
Skin contact	Let the product evaporate in the air. Defrost the affected area with water, then carefully remove the clothes. Than wash immediately with warm water. Consult a doctor in case of persistent pain.
Eye contact	Remove any contact lenses. Rinse immediately with plenty of water, even under the eyelids, for at least 30/60 minutes. Consult a doctor.
Ingestion	Rinse the mouth thoroughly with water. Call a doctor. Do not induce vomiting. Do not administer anything that is not expressly authorized by the doctor.

4.2. Most important symptoms and effects, both acute and delayed

For symptoms and effects due to the substance contained in the product, see section 11.

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

No further information available.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO ₂), foam, chemical powder, water spray.
Unsuitable extinguishing media	None in particular.

5.2. Special hazards arising from the substance or mixture

Do not breathe the gases produced by combustion.

5.3. Advice for firefighters:

Specific methods

Cool the containers with water jets to prevent product decomposition and the development of substances potentially dangerous for health.

Use appropriate full fire protection equipment.

Collect the extinguishing waters that must not be discharged into the drains.

Dispose of contaminated water used for extinction and fire residue according to current regulations.

Means of protection

Wear protective equipment (EN469), protection devices: compressed air breathing apparatus (EN137), anti-flame gloves (EN659) and boots for firefighters (HO A29 or A30).

SECTION 6: Accidental release measure

6.1. Personal precautions, protective equipment and emergency procedures

Wear appropriate protective equipment (including personal protective equipment referred to in section 8) to prevent contamination of skin, eyes and personal clothing. These indications are valid both for workers in work and for emergency interventions.

6.2. Environmental precautions

Block spillage at the origin if it is possible without risk.

Contain the loss with inert absorbent material (earth, sand).

Prevent the product from entering sewers, surface water or groundwater.

If the product has escaped into a water course, into the drainage system or has contaminated the ground or vegetation, immediately notify the competent authorities.

Eliminate, if possible, all open flames and possible sources of injection. Do not smoke near the product.

Do not release the product into the environment.

6.3. Methods and material for containment and cleaning up

Collect the leaked product with suitable means, wearing gloves and protective clothing and transfer it to a suitable place while waiting to dispose it. If the product is flammable, use a non-explosion device.

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Evaluate the compatibility of the container to be used with the product, verifying the section 10.
 Absorb the remainder with inert material or sand.
 After collection, wash the affected area and material with water. Provide sufficient ventilation of the place affected by the leak.
 Disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

For additional information regarding individual protection or disposal, see sections 5, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames, do not smoke or use matches or lighters.
 The product must be handled according to good safety and industrial hygiene practices.
 Do not smoke, do not drink or eat while handling the product.
 Avoid dispersion of the product in the environment.
 Keep in closed containers, avoiding any kind of loss or escape.
 Avoid contact with eyes, skin and inhalation of vapours.

7.2. Conditions for safe storage, including any incompatibility

Store in original containers.
 Store in a cool and well-ventilated place, far from heat sources, open flames, sparks and other sources of ignition.
 Keep the product in a dry place. Keep the product in closed containers and appropriately labelled.
 Keep the product away from incompatible products.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric acid

Type	State	TWA/8h mg/m3	ppm	STEL/15 min mg/m3	ppm	Notes
AGW	DEU	2		4		INALAB. (Inhalable fraction)
MAK	DEU	2		4		INALAB. (Inhalable fraction)
VLA	ESP	1		2		
VLEP	FRA	1	0,2	2	0,5	
WEL	GBR	1		2		
TLV	GRC	1		3		
VLEP	ITA	1		2		
OEL	NLD	1		2		
NDS	POL	1		2		
VLE	PRT	1		2		
NPHV	SVK	1		2		
ESD	TUR	1		2		
OEL	EU	1		2		
TLV-ACGIH		1		3		

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation in the workplaces with an effective local aspiration.
 Guarantee a general air exchange system.

8.2.2 Individual protection measures, such as personal protective equipment

a) Eye/face protection Operate according to good working practices. Use safety glasses with side protection (in accordance with EN 166).

b) Skin protection

i) Hand protection It is advisable to use suitable resistant protective gloves: nitrile rubber, neoprene. The penetration time of the gloves must be greater than the period of expected use. Gloves should be replaced immediately if they show signs of wear or deterioration.

ii) Other Wash hands thoroughly after exposure. Do not eat, drink or smoke during use.

c) Respiratory protection

In case of exceeding the threshold value of the substance or one or more substances present in the product, it is advisable to wear a type B filter with the class (1, 2 or 3) to be chosen in relation to the limit concentration of use. If there are gases or vapours of a different nature and/or gas or vapours with particles (aerosol, fumes, fogs, etc.), combined filters must be provided. The use of means of respiratory protection is necessary if the technical measures adopted are not sufficient to limit the worker's exposure to the threshold values taken into consideration. However, the protection offered by the masks is limited. In the event that the substance considered is odourless or its olfactive threshold is higher than the relative TLV-TWA and in case of emergency, wear an open circuit compressed air breathing apparatus (EN137) or an external air intake respirator (EN138)



8.2.3. Environmental exposure controls

Handling in accordance with good industrial hygiene and safety practice. Prevent spillage of the product into the drains or watercourses. Dispose of the washing water according to national and local regulations.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Physical state	Liquid
b) Colour	Colourless
c) Odour	Characteristic
d) Melting point/freezing point	< 5 °C
d) Boiling point or Initial boiling point and boiling range	> 100 °C
e) Flammability	No data available
f) Lower and upper explosion limit	No data available
g) Flash point	No data available
h) Auto-ignition temperature	No data available
i) Decomposition temperature	No data available
j) pH	ca. 4
k) Kinematic viscosity	No data available
l) Solubility (in the water)	Soluble in water
m) Partition coefficient n-octanol/water (log value)	No data available
n) Vapour pressure	No data available
o) Density and/or relative density	No data available
p) Relative vapour density	1.01 gr/cc @ 20 °C
q) Particle characteristics	No data available

9.2. Other information

Total solids (250 °C)	3.50%
VOC (Directive 2010/75/EC)	0
VOC (volatile carbon)	0

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no particular dangers of reaction with other substances under normal operating conditions.
 Phosphoric Acid: Decomposes at temperatures above 200 ° C.

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10.2. Chemical stability

Stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

Unusual reactions are not expected under normal use and storage conditions.

Phosphoric acid: risk of explosion in contact with nitromethane. Can react dangerously with: alkali, sodium boron hydride.

10.4. Conditions to avoid

None in particular. However, follow the usual precautions with regard to chemicals.

10.5. Incompatible materials

Phosphoric acid: incompatible with metals, strong alkalis, aldehydes, organic sulphides, peroxides.

10.6. Thermal decomposition

The phosphoric acid decomposes hot forming toxic fumes of phosphorus oxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

The preparation may cause, in particularly sensitive individuals, slight health effects due to inhalation and/or cutaneous absorption and/or contact with the eyes and/or ingestion.

a) acute toxicity

LC50 (Inhalation-vapours)	Not classified (no relevant component)		
LC50 (Inhalation – fogs/dusts)	Not classified (no relevant component)		
LD50 (Oral)	Not classified (no relevant component)		
LD50 (Skin)	Not classified (no relevant component)		
Phosphoric acid	LD50 (Oral)	1530 mg/kg	Mouse
	LD50 (Skin)	2740 mg/kg	Rabbit
	LC50 (Inhalation)	> 0.85 mg/l/1h	Mouse

b) skin corrosion/irritation This product does not answer to the criteria in accordance with legislation on hazardous substances.

c) serious eye damage/irritation This product does not answer to the criteria in accordance with legislation on hazardous substances.

d) respiratory or skin sensitisation This product does not answer to the criteria in accordance with legislation on hazardous substances.

e) germ cell mutagenicity This product does not answer to the criteria in accordance with legislation on hazardous substances.

f) carcinogenicity This product does not answer to the criteria in accordance with legislation on hazardous substances.

g) reproductive toxicity This product does not answer to the criteria in accordance with legislation on hazardous substances.

h) STOT-single exposure This product does not answer to the criteria in accordance with legislation on hazardous substances.

i) STOT-repeated exposure This product does not answer to the criteria in accordance with legislation on hazardous substances.

j) aspiration hazard This product does not answer to the criteria in accordance with legislation on hazardous substances.

11.2. Information on other hazards

For further information about components that are hazardous to health, see sections 2 and 8.

SECTION 12: Ecological information

12.1. Toxicity

Use according to good working practices, avoiding to disperse the product in the environment.

12.2. Persistence and degradability

Phosphoric acid Solubility in water: > 850000 mg/l
Biodegradability: No data available



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12.3. Bio-accumulative potential

No data available.

12.4. Mobility in soil

Avoid infiltration into the ground.

12.5. Results of the PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

12.6. Endocrine disrupting properties

n.a.

12.7. Other adverse effects

No more information.

SECTION 13: Disposal consideration

13.1. Waste treatment methods

General Info Take all necessary measures to avoid waste production as much as possible. Analyse possible recycling methods. The residues of the product such as are considered non-hazardous waste.

Disposal methods Contaminated packaging must be sent for recovery or disposal in accordance with national waste management regulations. Avoid to dispersion of the product into the sewers or in the environment. The residues must be handled and disposed of according to local and national regulations. If recycling is not practicable, dispose of in accordance with local and national regulations.

The user is obliged to observe compliance with EC, state and/or local regulations regarding waste disposal.

SECTION 14: Transport information

The product is not considered dangerous according to the provisions in force concerning the transport of dangerous goods by road (ADR), by rail (RID), by inland waterways (AND), by sea (IMDG-code) and by air (IATA/ICAO).

14.1. UN number or ID number Not applicable

14.2. UN proper shipping name Not applicable

14.3. Transport hazard class(es) Not applicable

14.4. Packing group Not applicable

14.5. Environmental hazards Not applicable

14.6. Special precautions for users

Unless otherwise specified, general transport safety measures must be carried out.

14.7. Maritime transport in bulk according to IMO instruments

n.a.

SECTION 15: Regulatory information

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

Seveso Category – Dir. 2012/18/EC: Not present

Restrictions of the product or substances contained in the annex XVII Regulation (EC) 1907/2006: Not present

Substances in Candidate List (Art. 59 REACH): On available data, the product does not contain SVHC substances in percentage higher than 0.1%

Substances subject to authorization (Annex XVI REACH): Not present

Substances subject to obligation of export notification Reg. (EC) 649/2012: Not present

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Substances subject to Rotterdam Convention: Not present
Substances subject to Stockholm Convention: Not present
Sanitary checks: No data available

15.2. Chemical safety evaluation

A Chemical Safety Assessment (CSA) has been performed for the following substances: Phosphoric acid.

SECTION 16: Other information

This Safety Data Sheet has been prepared in accordance with the European Directive in force.

History	Version 5 by Mariel Srl Revision date: 10/2021	Version 4 Date: 06/2019	Version 3 Date: 07/2018	Version 2 Date: 06/2013	Version 1 Date: 09/2007
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Text of hazard (H) statements in section 3

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Text of “Hazard Class and Category Code” in section 3, according to Regulation (EC) No 1272/2008

Met. Corr. 1	Metals corrosive, category 1
Acute Tox. 2	Acute toxicity, category 2
Skin Corr. 1A	Skin corrosive, category 1A
Eye Dam. 1	Eye damage, category 1

b) Abbreviations and acronyms

ADN	Agreement Dangerous goods by inland waterways
ADR	Accord Dangerous Route
CAS	Chemical Abstracts Service number
CE / EC	European Community
CLP	Classification, Labelling, Packaging
CSA	Chemical Safety Assessment
DNEL	Derived No Effect Level
EmS	Emergency Schedule
GHS	Globally Harmonized System
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INDEX	Identification number in Annex VI of CLP
LC50	Lethal Concentration 50%
LD50	Lethal Dose 50%
n.a.	not applicable
OEL	Occupational Exposure Limit
ONU	United Nations Organizations
PBT	Persistent, Bioaccumulative, Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Rail International Dangerous goods transport
STEL	Short Term Exposure Limit
STOT-RE	Specific target organ toxicity - repeated exposure
STOT-SE	Specific target organ toxicity - single exposure
TLV	Threshold Limit Values
TLV-ACGIH	Threshold Limit Values - American Conference of Governmental Industrial Hygienists
TLV-TWA	Threshold Limit Values - Time-weighted average
UE / EU	European Union
VLEP	Valori Limite di Esposizione Professionale



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VOC Volatile Organic Compounds
vPvB very Persistent very Bioaccumulative

Notice of liability

This information should not be considered a guarantee or a specification of the quality of the product. This information is provided with the purpose of allowing the use, storage, transport and disposal of the product in the most correct and safe ways for workers and the environment.

The information contained in this safety data sheet are based on our current knowledge and EU and national laws; they describe the product only with regard to safety requirements. The conditions of the user are beyond our knowledge and control. The product should not be used for purpose other than those specified. It is always the responsibility of the user to take all the necessary measures to comply with the requirements of current legislation. The information contained in this form should not be considered as a guarantee of its properties.
