SAFETY DATA SHEET

In compliance with EC Regulations No.: 1907/2006, 830/2015 and 1272/2008 (CLP).

Date last modified: 08 December 2020 - version 5.0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier

Product Name: ELECTROCLEAN A
Product Code: 832510 (25L)

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

Intended Use: Industrial applications; Cleaning agent for machinery and equipment.

Uses advised against: This product is not recommended for any industrial, professional or consumer use other than the Intended Uses above and the instructions written in this Safety Data Sheet.

1.3 Details of the supplier of the safety data sheet

Company/undertaking identification

Supplier/Manufacturer:

Company:
Marichem Marigases Hellas SA
Sfaktirias 64,
185 45 Piraeus,
Greece
Tel. No.: ++30 210 4148800
Fax No.: ++30 210 4133985
e-mail: mail@marichem-marigases.com
http://www.marichem-marigases.com

e-mail: mail@marichem-marigases.com

1.4 Emergency telephone number

Tel. No.: ++30 210 4148800 (including working hours)

Emergency Information:
Inside U.S. and Canada: (800)-424-9300 (CHEMTREC)
Outside U.S. and Canada: 1-703-527-3887 (CHEMTREC)
National Emergency Centre (Greece): ++30 210 7793777

2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture

Classification under EC 1272/2008 regulation - GHS classification.

Aspiration hazard - Category 1; H304
Serious eye damage - Category 1; H318
Specific target organ toxicity - single exposure - Category 3; Narcotic effects.
Respiratory tract irritation; H335, H336
Carcinogenicity - Category 2; H351
Specific target organ toxicity - repeated exposure - Category 1; H372
Hazardous to the aquatic environment; Long-term Hazard - Category 2; H411
Supplemental Hazard Information: EUH066.

SIGNAL WORD: DANGER

GHS07 **GHS08** **GHS09**

Hazard Statement(s):

H304: May be fatal if swallowed and enters airways.
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.
H411: Toxic to aquatic life with long lasting effects.
EUH066: Repeated exposure may cause skin dryness or cracking.

2.2 Label Elements

Labelling according to Regulation (EC) No. 1272/2008.
The substance is classified and labelled according to the CLP Regulation.

Hazard Pictograms

GHS07 **GHS08** **GHS09**

Hazard Statement(s):

H304: May be fatal if swallowed and enters airways.
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.
H411: Toxic to aquatic life with long lasting effects.
EUH066: Repeated exposure may cause skin dryness or cracking.

Precautionary Statements

Prevention

P102: Keep out of reach of children.
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe fume/mist/vapours/spray.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/ eye protection/ face protection.

Response

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P310: Immediately call a POISON CENTER or doctor/physician.
P331: Do NOT induce vomiting.
P370 + P378: In case of fire: Use foam, dry chemicals, CO_2 for extinction.

Storage

P403 + P233: Store in a well ventilated place. Keep container tightly closed.
P403 + P235: Store in a well ventilated place. Keep cool.

Disposal

P501: Dispose of contents and container to appropriate waste site or reclaimer in accordance with local and national regulations.

2.3 Other Hazards

Health Hazards: Repeated exposure may cause skin dryness or cracking. Possibility of organ or organ system damage from prolonged exposure; see Chapter 11 for details. Target organ(s): Auditory system.

Safety Hazards: In use, may form flammable/explosive vapour-air mixture. This material is a static accumulator. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur.

Other Information: For Industry guidance and tools on REACH please visit the CEFIC website at http://cefic.org/Industry-support.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Composition:

Ingredients	CAS Number	Proportion	Hazard Code(s)*
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	64742-82-1	40% - 60%	H226; H304; H336; H372; H411.
Tetrachloroethylene	127-18-4	40% - 60%	H351; H411.

**See section 16 for the full text of the Hazard Code(s) declared above.

Occupational Exposure Limits, if available, are listed in section 8.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Information: Not expected to be a health hazard when used under normal conditions.
Inhalation: Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
Skin Contact: Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.
Eye Contact: Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.
Ingestion: If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3° C), shortness of breath, chest congestion or continued coughing or wheezing.

4.2 Most important symptoms and effects, both acute and delayed

If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, irritant effects, headache, vertigo, cough, acute respiratory distress, gastrointestinal complaints, vomiting, narcosis and/or fever. Auditory system effects may include temporary hearing loss and/or ringing in the ears.

4.3 Indication of any immediate medical attention and special treatment needed

Potential for chemical pneumonitis. Call a doctor or poison control center for guidance.

5. FIRE-FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

5.1 Extinguishing Media

Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not discharge extinguishing waters into the aquatic environment.

Unsuitable Extinguishing Media: Do not use water in a jet.

5.2 Special hazards arising from the substance or mixture

Carbon Monoxide, Carbon Dioxide and Hydrogen Chloride may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

5.3 Advice for fire-fighters

Wear full protective clothing and self-contained breathing apparatus.
Additional Information: Keep adjacent containers cool by spraying with water.
Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance.

6. ACCIDENTAL RELEASE MEASURES

Observe all relevant local and international regulations.

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

6.2 Environmental Precautions

Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays.
Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas indicator.

6.3 Methods and Material for Containment and Cleaning up

For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely.
Remove contaminated soil and dispose of safely.

Additional Advice: See Chapter 13 for information on disposal. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

7. HANDLING AND STORAGE

General Precautions

Avoid breathing vapours or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. On guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

7.1 Precautions for Safe Handling

Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Avoid contact with skin, eyes and clothing. Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. Be aware of handling operations that may give rise to additional hazards that result from the accumulation of static charges. These include but are not limited to pumping (especially turbulent flow), mixing, filtering, splash filling, cleaning and filling of tanks and containers, sampling, switch loading, gauging, vacuum truck operations, and mechanical movements. These activities may lead to static discharge e.g. spark formation. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<= 1 m/s until fill pipe submerged to twice its diameter, then <= 7 m/s). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations.

Product Transfer

Keep containers closed when not in use. Refer to guidance under Handling section.

7.2 Conditions for safe storage, including any incompatibilities

Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Must be stored in a diked (bunded) wellventilated area, away from sunlight, ignition sources and other sources of heat. Bulk storage tanks should be diked (bunded).

Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products which are not harmful or toxic to man or to the environment. Storage Temperature: Ambient.

Recommended Materials

For containers, or container linings use mild steel, stainless steel. For container paints, use epoxy paint, zinc silicate paint.

Unsuitable Materials

Avoid prolonged contact with natural, butyl or nitrile rubbers.

Container Advice

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

7.3 Specific end use(s)

Additional Information

Ensure that all local regulations regarding handling and storage facilities are followed. See additional references that provide safe handling practices for liquids that are determined to be static accumulators: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices on Static Electricity). CENELEC CLC/TR 50404 (Electrostatics – Code of practice for the avoidance of hazards due to static electricity).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Name of Substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Occupational Exposure Limits

UK Workplace Exposure Limits

In the absence of occupational exposure standards for this product, it is recommended that the following are adopted:

Material	Source	Type	ppm	mg/m^3	Notation
RCP Mineral spirits 150 - 200	UK SIA	TWA (8h)	100 ppm	600 mg/m^3	

Additional Information: Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.

Biological Exposure Index (BEI)

Material	Determinant	Sampling time	BEI	Reference
Benzene	t,t-Muconic acid in Creatinine in urine	Sampling time: End of shift.	500 µg/g	ACGIH BEL (2008)
	S-Phenylmercapturic acid in Creatinine in urine	Sampling time: End of shift.	25 µg/g	ACGIH BEL (2008)
Xylene, Mixed Isomers	Methylhippuric acids in Creatinine in urine	Sampling time: End of shift.	1.5 g/g	ACGIH BEL (2009)
	Methylhippuric acids in Creatinine in urine	Sampling time: End of shift.	650 mmol/mol	UKEH40BMGV (2005)
Ethylbenzene	Ethyl benzene in End-exhaled air	Sampling time: Not critical.		ACGIH BEL (2008)
	Sum of mandelic acid and phenylglyoxylic acid in Creatinine in urine	Sampling time: End of shift at end of work week.	0.7 g/g	ACGIH BEL (2009)

Derived No Effect Levels (DNEL/DMEL) Table

Component	Exposure Route	Exposure Type (long/short)	Application Area	Value
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	Inhalation	long term, systemic effects	Worker	330 mg/m^3
	Dermal	long term, systemic effects	Worker	44mg/kg/d
	Inhalation	long term, systemic effects	Consumer	71 mg/m^3
	Dermal	long term, systemic effects	Consumer	26mg/kg/d
	Oral	long term, systemic effects	Consumer	26mg/kg/d

PNEC related information
Substance is a hydrocarbon with a complex, unknown or variable composition. Conventional methods of deriving PNECs are not appropriate and it is not possible to identify a single representative PNEC for such substances.

Name of Substance: Tetrachloroethylene

Occupational Exposure Limits (Workplace Exposure Limits)

Country	Identifier	TWA (ppm)	TWA (mg/m^3)	STEL (ppm)	STEL (mg/m^3)	Source
EU	IOELV	20	138	40	275	2017/164/EU
UK	WEL	20	138	40	275	EH40/2005

Monitoring Methods
Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.
National Institute of Occupational Safety and Health (NIOSH),
USA: Manual of Analytical Methods http://www.cdc.gov/niosh/ Occupational Safety and Health Administration (OSHA),
USA: Sampling and Analytical Methods http://www.osha.gov/ Health and Safety Executive (HSE),
UK: Methods for the Determination of Hazardous Substances, http://www.hse.gov.uk/
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany.
http://www.dguv.de/inhalt/index.jsp L'Institut National de Recherche et de Securité, (INRS), France
http://www.inrs.fr/accueil

8.2 Exposure Controls

General Information
The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances.
Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Eye washes and showers for emergency use.

Read in conjunction with the Exposure Scenario for your specific use contained in the Annex.
Do not ingest. If swallowed then seek immediate medical assistance. If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes.

Occupational Exposure Controls

Personal Protective Equipment
Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Eye Protection
Monogoggles (EN166)
Chemical splash goggles (chemical monogoggles).

Hand Protection
Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739, AS/NZS:2161) made from the following materials may provide suitable chemical protection.
Longer term protection: Nitrile rubber gloves. Incidental contact/Splash protection: PVC or neoprene rubber gloves Personal hygiene is a key element of effective hand care.
Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Body protection
Use protective clothing which is chemical resistant to this material. Safety shoes and boots should also be chemical resistant. Wear antistatic and flame retardant clothing.

Respiratory Protection
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapors [Type A boiling point > 65°C (149°F)] meeting EN14387. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Thermal hazards
Not applicable

Environmental Exposure Controls

Environmental exposure control measures
Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

9.1.1. Appearance

Physical State: Liquid

Color: Clear, colorless

Odor: Characteristic ethereal odor

9.1.2. Basic data

Boiling Point Range: Not available

Melting Point Range: Not available

Solubility in water: Not soluble in water

Flash Point: $> 60^0$ C

Autoignition Temperature: Not available

Dielectric Constant (kV/2.5 mm) 36.7

Lower Explosion Limit (vol %): Not available

Upper Explosion Limit (vol %): Not available

Vapour Pressure: <13mm Hg at 20^oC

Vapor density: Heavier than air

Stability: Very stable under standard, normal conditions.

Specific Gravity: 1.25 gr/cm^3 at 15^oC

9.2 Other Information: No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity
Not applicable.

10.2 Chemical stability
Stable under standard and normal conditions of storage and use.

10.3 Possibility of Hazardous Reactions
Data not available.

10.4 Conditions to Avoid
Avoid contact with open flame, electric arcs or other hot surfaces which can cause thermal decomposition.

10.5 Incompatible Materials
Strong Alkalis, oxygen, magnesium, sodium, potassium, barium, lithium, and other oxidizers and reactive metals.

10.6 Hazardous Decomposition Products
Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including Hydrogen Chloride, Phosgene, Chlorine, Carbon Monoxide, Carbon Dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Name of substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Basis for Assessment: Information given is based on product testing, and/or similar products, and/or components.
Routes of Exposure: Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.
Acute Oral Toxicity: Low toxicity: LD50 >5000 mg/kg, Rat
Acute Dermal Toxicity: Low toxicity: LD50 >2000 mg/kg, Rat.
Acute Inhalation Toxicity: Low toxicity: LC50 greater than near-saturated vapour concentration / 4 hours, Rat
Skin Irritation: Not irritating to skin. Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.
Eye Irritation: Not irritating to eye.
Respiratory Irritation: Inhalation of vapours or mists may cause irritation to the respiratory system.
Sensitisation: Not expected to be a sensitiser.
Aspiration hazard: Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Mutagenicity: Not mutagenic.
Carcinogenicity: Not expected to be carcinogenic. Tumours produced in animals are not considered relevant to humans.
Reproductive and Developmental Toxicity: Not expected to impair fertility. Not a developmental toxicant.
Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure: Kidney: caused kidney effects in male rats which are not considered relevant to humans

Name of Substance: Tetrachloroethylene

LC50 (oral, rat):	2629 mg/kg
LC50 (inhalation, rat):	40800 mg/kg / 1minute
LD50 (inhalation, human):	2700 mg/m^3 / 1hr
LD50 (oral, rabbit):	5000 mg/kg

HEALTH EFFECTS

Inhalation: Exposure to high concentrations of vapour or mist can cause central nervous system depression with symptoms of headache

Skin contact: Prolonged or repeated contact of liquid can cause irritation, defatting of skin and dermatitis.

Eye contact: Liquid in eyes produces pain and irritation with mild temporary damage. Possible vapor can irritate eyes.

Ingestion: If vomiting occurs, methylene chloride can be aspired into lungs, which can cause chemical pneumonia and systematic effects as described in the inhalation section.

CHRONIC TOXICITY

Adverse effects on the liver and kidneys have been reported in laboratory animal studies. The finding of chronic toxic effects in laboratory animals may indicate toxicity to humans.

FURTHER TOXICOLOGICAL INFORMATION

The International Agency for Research on Cancer (IARC) has concluded that, with respect to Tetrachloroethylene, there is sufficient evidence of the carcinogenicity to experimental animals and inadequate evidence for carcinogenicity to humans.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Name of substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Acute Toxicity
Fish: Toxic: LL/EL/IL50 >1 - <=10 mg/l
Aquatic crustacea: Toxic: LL/EL/IL50 >1 - <=10 mg/l
Algae/aquatic plants: Toxic: LL/EL/IL50 >1 - <=10 mg/l
Microorganisms: Practically non toxic: LL/EL/IL50 > 100 mg/l

Chronic Toxicity
Fish: NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l (based on modelled data).
Aquatic crustacea: NOEC/NOEL expected to be > 0.1 - <= 1.0 mg/l (based on test data).

Name of Substance: Tetrachloroethylene

Aquatic Toxicity (acute)

Endpoint	Value	Species	Source	Exposure time
LC50	5 mg/l	rainbow trout (Onco-rhynchus mykiss)		96 hours
EC50	22 mg/l	daphnia magna		48 hours

Aquatic toxicity (chronic)
May cause long-term adverse effects in the aquatic environment.

Endpoint	Value	Species	Source	Exposure time
LC50	17.8 mg/l	fish	ECHA	7 days
EC50	176 mg/l	Aquatic invertebrates	ECHA	24 hours

12.2 Persistence and Degradability

Name of substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Readily biodegradable. Oxidises rapidly by photo-chemical reactions in air.

Name of Substance: Tetrachloroethylene

Not readily biodegradable.

Process	Degradation rate	Time
Biotic/abiotic	11%	28 days

12.3 Bioaccumulative potential

Name of substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Has the potential to bioaccumulate.

Name of Substance: Tetrachloroethylene

Does not significantly accumulate in organisms.

n-octanol/water (log KOW) 3.4
BCF 49

12.4 Mobility in soil

Name of substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Floats on water. Adsorbs to soil and has low mobility.

Name of Substance: Tetrachloroethylene

Data are not available.
Henry's law constant 1,793 Pa m^3/mol

12.5 Results of PBT and vPvB assessment

Name of substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

Name of Substance: Tetrachloroethylene

Data are not available.

12.6 Other adverse effects

Name of substance: Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

None known.

Name of Substance: Tetrachloroethylene

Data are not available.

Endocrine disrupting potential

Combined category	Human health category	Wildlife category
CAT2	CAT2	CAT3

Legend
CAT2 Category 2 - at least some in vitro evidence of biological activity related to endocrine disruption.
CAT3 Category 3 - no evidence of endocrine disruption or no data available.

Remarks

Discharge into the environment must be avoided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Material Disposal: Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.
Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water.

Container Disposal: Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send to drum recoverer or metal reclaimer.

Local Legislation: Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be in compliance.

14. TRANSPORT INFORMATION

14.1 Proper shipping name: Toxic Liquid, Organic NOS (Tetrachloroethylene)

14.2 LAND TRANSPORT

UN number: 2810 RID-class: 6,1
ADR class: 6,1 Subsidiary Risk Label: Marine Pollutant
Packing group: III

14.3 SEA TRANSPORT

UN number: 2810 EmS: F-A, S-A
IMDG class: 6,1 Subsidiary Risk Label: Marine Pollutant
IMDG packing group: III

14.4 AIR TRANSPORT

UN number: 2810
IATA/ICAO class: 6,1 Packing group: III

15. REGULATORY INFORMATION

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2 Chemical Safety Assessment

A CSA has been carried out for the raw materials in this product, from the raw materials manufacturers (when needed to be carried out).

16. OTHER INFORMATION

16.1 Full text of Hazard Code(s) referred in Section 3

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H336: May cause drowsiness or dizziness.
H351: Suspected of causing cancer.
H372: Causes damage to organs through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.
EUH066: Repeated exposure may cause skin dryness or cracking.

16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).
IMDG: International Maritime Code for Dangerous Goods.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
bw: Body weight.
Carc.: Carcinogenicity.
CAS number: Chemical Abstracts Service number.
CLP: Classification Labelling Packaging Regulation.
CSA: Chemical Safety Assessment.
CSR: Chemical Safety Report.
DNEL: Derived No Effect Level.
dw: Dry weight.
EC number: EINECS and ELINCS number.
EC: European Commission.
EC50: Half maximal effective concentration.
EINECS: European Inventory of Existing Commercial Chemical Substances.
ELINCS: European List of Notified Chemical Substances.
EmS: Emergency Schedule.
ERC: Environmental Release Category.
ES: Exposure scenario.
food: oral feed.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
Irrit.: Irritation.

LC50: Lethal concentration, 50 %.
LD50: Median Lethal dose.
LOAEC: Lowest Observed Adverse Effect Concentration.
LOAEL: Lowest Observed Adverse Effect Level.
MK value: Maximum Concentration value.
NCO: An international corporation that provides customer service contracting.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
OECD: Organisation for Economic Cooperation and Development.
PBT: Persistent, Bioaccumulative and Toxic.
PNEC: Predicted No Effect Concentration.
PROC: Process category.
REACH: The Registration, Evaluation, Authorisation and Restriction of Chemicals.
Resp.: Respiratory.
Sens.: Sensitization.
STEL value: Short Term Exposure Limit value.
STOT RE: Specific target organ toxicity — repeated exposure.
STOT SE: Specific target organ toxicity — single exposure.
STOT: Specific Target Organ Toxicity.
STP: Sewage Treatment Plant.
SU: Sector of use.
Tox.: Toxicity.
TWA value: Time Weighted Average value.
vPvB: Very Persistent and Very Bioaccumulative.

16.3 Notice to reader

All information, instructions and statements contained in this Material Safety Data Sheet are compiled in accordance with European Directives, corresponding national legislation and on the basis of information given by our suppliers.
The information disclosed in this Material Safety Data Sheet (which supersedes all previous versions) is believed to be correct, at the date of issue, to the best of our current knowledge and experience. It only relates to the specific product designated herein and it may not be valid when said product is used in combination with any other products or in any processed form, unless specified in the text. This document aims to provide the necessary health and safety information of the product and is not to be considered a warranty or quality specification. It is the responsibility of the recipient of this Material Safety Data Sheet to ensure that information given here is read and understood by all who use, handle, dispose of or in any way come in contact with the product.
Also, it is the responsibility of the user to comply with local legislation relating to safety, health, environment and waste management. Data and information provided concerning the product are informative, exclusively presented to the customer.