

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

**Product identifier:**

**Product name:** PERKLONE D  
**Chemical name:** Tetrachloroethylene  
**REACH Registration number:** 01-2119475329-28-xxxx  
**EC No.:** 204-825-9

**Relevant identified uses of the substance or mixture and uses advised against:**

**Identified uses:** Solvent for Industrial Use  
Heat transfer fluid  
Chemical intermediate

**Uses advised against:** None

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## 2. HAZARDS IDENTIFICATION

**Classification (EC 1272/2008)**

**Physical and Chemical Hazards:** Not classified.

**Human health:** Skin Irrit. 2 – H315; Skin Sens. 1 – H317; Carc. 2 – H351; STOT Single 3 – H336

**Environment:** Aquatic Chronic 2 – H411

**Classification (67/548/EEC):** Carc. Cat. 3; R40. N; R51/53.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**Label elements:**

**EC No.:** 204-825-9

**Label In Accordance With (EC) No. 1272/2008**



**Signal Word:** Warning

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<b>Hazard Statements:</b>	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer. H411 Toxic to aquatic life with long lasting effects.
<b>Precautionary Statements:</b>	P202 Do not handle until all safety precautions have been read and understood. P273 Avoid release to the environment. P281 Use personal protective equipment as required. P302+352 IF ON SKIN: Wash with plenty of soap and water. P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P308+313 IF exposed or concerned: Get medical advice/attention. P391 Collect spillage. P405 Store locked up. Dispose of contents and container to a registered waste disposal company.
<b>Other hazards:</b>	

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Substances:

<b>Product name:</b>	PERKLONE D
<b>REACH Registration number:</b>	01-2119475329-28-xxxx
<b>EC No.:</b>	204-825-9
<b>Gross Formula:</b>	C2Cl4
<b>Composition Comments:</b>	This product is stabilised through the addition of a stabiliser.

### 4. FIRST AID MEASURES

#### Description of first aid measures:

<b>General information:</b>	NOTE! Effects may be delayed. Keep affected person under observation. Physician should be warned not to use adrenalin!
<b>Inhalation:</b>	Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.
<b>Ingestion:</b>	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention immediately! Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. DO NOT INDUCE VOMITING!
<b>Skin contact:</b>	Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Get medical attention promptly if symptoms occur after washing.
<b>Eye contact:</b>	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

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**Most important symptoms and effects, both acute and delayed:**

**Indication of any immediate medical attention and special treatment needed:**

### 5. FIRE-FIGHTING MEASURES

**Extinguishing media:** Fire can be extinguished using: Water. Foam. Carbon dioxide (CO<sub>2</sub>). Dry chemicals, sand, dolomite etc.

**Special hazards arising from the substance or mixture:**

**Unusual Fire & Explosion Hazards:** May explode in a fire. May develop highly toxic or corrosive fumes if heated.

**Specific hazards:** Toxic gases/vapours/fumes of: Phosgene (COCl<sub>2</sub>). Carbon monoxide (CO). Hydrogen chloride (HCl).

**Advice for firefighters:**

**Special Fire Fighting Procedures:** Keep run-off water out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water until well after the fire is out. Stay away from ends of tanks. If risk of water pollution occurs, notify appropriate authorities. Protective equipment for fire-fighters. Wear full protective clothing. Wear suitable respiratory protection when dealing with a fire.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**

Wear appropriate protective clothing and respiratory protection. Ensure good ventilation. Do not breathe vapour. Avoid inhalation of spray mist and contact with skin and eyes.

**Environmental precautions:** Do not let the product or washing down water enter natural water courses or the sewer. Inform the relevant authorities if this occurs.

**Methods and material for containment and cleaning up:** Collect with absorbent, non-combustible material into suitable containers. Provide ventilation and confine spill. Do not allow runoff to sewer.

**Reference to other sections:**

### 7. HANDLING AND STORAGE

**Precautions for safe handling:** Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Wear full protective clothing for prolonged exposure and/or high concentrations.

**Conditions for safe storage, including any incompatibilities:** May attack some plastics, rubber and coatings. Store in tightly closed original container in a dry, cool and well-ventilated place.

**Storage Class:** Toxic storage.

**Specific end use(s):**

**Usage Description:** Storage tanks must be positioned within a bunded area.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control parameters:**

- DNEL Industry Inhalation. Short Term 275 mg/m<sup>3</sup>
- DNEL Industry Inhalation. Long Term 138 mg/m<sup>3</sup>
- DNEL Industry Dermal Long Term 39.4 mg/kg/day
- DNEL Consumer Inhalation. Short Term 137.5 mg/m<sup>3</sup>
- DNEL Consumer Inhalation. Long Term 34.5 mg/m<sup>3</sup>
- DNEL Consumer Dermal Long Term 23 mg/kg/day
- DNEL Consumer Oral Long Term 1.3 mg/kg/day

**Exposure controls:**

**Protective equipment:**



**Process conditions:** Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station. Ensure a Safety shower is nearby Wash all splashes from the skin immediately. Provide adequate general and local exhaust ventilation.

**Engineering measures:** Provide adequate general and local exhaust ventilation.

**Respiratory equipment:** CCROVF, CCR with organic vapour respirator and full face piece. GMOV, gas mask with organic vapour canister (chin style or front mounted). SAF, supplied-air respirator with full face piece, helmet or hood. SCBAF, self- contained breathing apparatus with full face piece.

**Hand protection:** Use protective gloves made of: Polyvinyl alcohol (PVA). P.T.F.E (Teflon). Viton rubber (fluor rubber). Manufactured/tested in accordance with EN 374. Determined penetration times carried out in accordance with EN374 part III are not performed under practical conditions, therefore, a maximum wearing time corresponding to 50% of the penetration time is recommended.

**Eye protection:** Wear splash-proof eye goggles to prevent any possibility of eye contact. Manufactured/Tested in accordance with EN 166.

**Other Protection:** Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash, quick drench. Wear appropriate clothing to prevent repeated or prolonged skin contact. Impervious clothing, gloves and minimum 8 inches face shield.

**Hygiene measures:** Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Isolate contaminated clothing and wash before reuse. DO NOT SMOKE IN WORK AREA!

**Skin protection:** Wear apron or protective clothing in case of splashes.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties:

<b>Appearance:</b>	Liquid
<b>Colour:</b>	Colourless.
<b>Odour:</b>	Ether
<b>Solubility:</b>	Slightly soluble in water.
<b>Miscible with:</b>	Organic solvents.
<b>Initial boiling point and boiling range:</b>	120 - 122
<b>Melting point (°C):</b>	-22
<b>Relative density:</b>	1.62 - 1.63 20.0
<b>Vapour pressure:</b>	14.20 20.0
<b>Solubility Value (G/100G H2O @20°C):</b>	0.01
<b>Other information:</b>	

### 10. STABILITY AND REACTIVITY

#### Reactivity:

**Chemical stability:** Stable under the prescribed storage conditions.

#### Possibility of hazardous reactions:

**Conditions to avoid:** Avoid heat, flames and other sources of ignition.

#### Incompatible materials

**Materials to Avoid:** Bases, alkalis (inorganic). Strong oxidising substances. Chemically active metals. Barium, Beryllium. Nitrogen Dioxide. Potassium. Sodium Hydroxide.

**Hazardous decomposition products:** Very toxic gases/vapours/fumes of: Carbon monoxide (CO). Hydrogen chloride (HCl). Phosgene (COCl<sub>2</sub>).

### 11. TOXICOLOGICAL INFORMATION

#### Information on toxicological effects:

**Toxic Dose 1 - LD 50:** 250 mg/kg (oral rat)

**Toxic Conc. - LC 50:** 4000 ppm/4h (inh-rat)

**Other Health Effects:** Carcinogen Category 3.

**Health Warnings:** Gas or vapour is harmful on prolonged exposure or in high concentrations. Gas or vapour displaces oxygen available for breathing (asphyxiant). This chemical may cause skin/eye irritation and burns (corrosive). Irritant of eyes and mucous membranes. Toxic through skin absorption (percutaneous). Narcotic effect. CNS depressant. Hepatotoxin. Nephrotoxin. Known or suspected carcinogen for humans. Repeated exposure may cause chronic eye irritation. Prolonged or repeated contact leads to drying of skin. Product has a defatting effect on skin. Acute eczematous dermatitis, contact type erythema, oedema, papules, vesicles, bullae, crusts, desquamation. Liver and/or kidney damage. Unconsciousness, death.

**Route of entry:** Inhalation. Ingestion. Skin and/or eye contact.

**Target Organs:** Central nervous system Eyes Gastro-intestinal tract Kidneys Liver Respiratory system, lungs, skin.

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**Medical Symptoms:** Extreme irritation of eyes and mucous membranes, including burning and tearing. Dilated pupils. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. Severe skin irritation. Cyanosis (blue tissue condition, nails, lips, and/or skin). Nausea, vomiting. Drowsiness, dizziness, disorientation, vertigo. Unconsciousness, possibly death.

**Medical Considerations:** Skin disorders and allergies. Liver and/or kidney problems. Convulsive disorders, CNS problems.

### 12. ECOLOGICAL INFORMATION

**Toxicity:**

**Acute Fish Toxicity:** Toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

**Acute Toxicity:** Fish LC50 96 hours 5 mg/l *Onchorhynchus mykiss* (Rainbow trout)

**Acute Toxicity:** Aquatic EC50 48 hours 8.5 mg/l *Daphnia magna*

**Invertebrates:** IC 50, 72 Hrs, Algae, mg/l 3.64

**Persistence and degradability:**

**Degradability:** The product is moderately biodegradable.

**Bioaccumulative potential:** The product is not bioaccumulating.

**Mobility in soil:**

**Results of PBT and vPvB assessment:** This product does not contain any PBT or vPvB substances.

**Other adverse effects:**

### 13. DISPOSAL CONSIDERATIONS

**General information:** Contaminated packages must be completely emptied before sending away for laundering and re-use.

**Waste treatment methods:** Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point. Confirm disposal procedures with environmental engineer and local regulations. These goods and packaging must be disposed of in accordance with the Hazardous Waste Regulations.

**Waste Class:**

**EWC NUMBER:** Allocation of a waste code number in accordance with the European Waste Catalogue, should be carried out in agreement with an EA authorised waste disposal company.

### 14. TRANSPORT INFORMATION

**UN number:**

**UN No. (ADR/RID/ADN):** 1897

**UN proper shipping name**

**Proper Shipping Name:** Tetrachloroethylene

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### Transport hazard class(es)

ADR/RID/ADN Class: 6.1  
ADR/RID/ADN Class: Class 6.1: Toxic substances.  
ADR Label No.: 6  
ICAO Class/Division: 6.1

### Transport Labels:



### Packing group:

ADR/RID/ADN Packing group: III  
ICAO Packing group: III

### Environmental hazards:

Environmentally Hazardous Substance/Marine Pollutant



### Special precautions for user

Emergency Action Code: 2Z  
Hazard No. (ADR): 60 Toxic or slightly toxic substance.  
Tunnel Restriction Code: (E)

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

## 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture:

**UK Regulatory References:** The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

**Guidance Notes:** Workplace Exposure Limits EH40.

**EU Legislation:** Regulation (EC) No 1272/2008 CLP. Regulation (EC) No 1907/2006 REACH.

**Chemical Safety Assessment:** A chemical safety assessment has been carried out.

**Note:** The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

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### 16. OTHER INFORMATION

**Risk Phrases In Full:**

R40 Limited evidence of a carcinogenic effect.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Hazard Statements In Full:**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

**Legal disclaimer:**

The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation.

This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.