

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

1.1. Product identifier

Product form : Mixture
Product name : Duo Acid Clean
Type of product : Cleaner and descaler
Product group : Trade product

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Quat-Chem Ltd. A Neogen Company.
1-4 Sandfield Industrial Park, Dodgson Street,
Greater Manchester, United Kingdom, OL16 5SJ.
W: animalsafety.neogen.com E: biosecuritysales@neogen.com
T: +44(0)1706 344 797

1.4. Emergency telephone number

Emergency number : In an emergency dial local emergency services 999.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU 2015: According to Regulation (EU) 2015/830 (REACH Annex II)

Corrosive to metals, Category 1 H290
Skin corrosion/irritation, Category 1A H314
Serious eye damage/eye irritation, Category 1 H318
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger
Hazardous ingredients : Sulphuric Acid ; Orthophosphoric Acid
Hazard statements (CLP) : H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
Precautionary statements (CLP) : P234 - Keep only in original packaging.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep 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.
P310 - Immediately call a POISON CENTER or doctor.
P390 - Absorb spillage to prevent material damage.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Supplementary precautionary statements (CLP): P264 - Wash hands, forearms and face thoroughly after handling.
P321 - Specific treatment (see supplemental first aid instruction on this SDS).

2.3. Other hazards

No additional information available

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sulphuric Acid	CAS-No.: 7664-93-9 EC-No.: 231-639-5 EU REACH-Reg. No.: 01-2119458838-20-xxxx	20 - 30	Met. Corr. 1, H290 Skin Corr. 1A, H314
Phosphoric Acid	CAS Number: 1310-58-3 EC Number: 215-181-3 REACH Reg. No.: 01-2119487136-33-XXXX	5 - 10	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: The severity and nature of the symptoms described will vary dependant of the concentration and the length of exposure.
First-aid measures after inhalation	: If person inhales to spray mist move into fresh air, and if recovery is not rapid seek medical attention.
First-aid measures after skin contact	: Remove contaminated clothing. Wash affected area with plenty of water. If in doubt or symptoms persist obtain medical attention. Launder clothing before re-use.
First-aid measures after eye contact	: SPEED IS ESSENTIAL. Immediately irrigate eye with plenty of water or eye-wash solution for 10 minutes. Obtain medical attention.
First-aid measures after ingestion	: Only if person is conscious, rinse mouth out with plenty of water and give 200-300ml water to drink. DO NOT INDUCE VOMITING. Keep patient at rest and obtain medical attention.

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

Symptoms/effects after inhalation	: Irritation of nose and throat.
Symptoms/effects after skin contact	: Burning pain and corrosive skin damage. May cause chemical burns to the skin.
Symptoms/effects after eye contact	: Extreme irritation of eyes and mucous membranes, including burning and tearing. Corneal damage.
Symptoms/effects after ingestion	: May cause chemical burns to nose and throat.
Symptoms/effects upon intravenous administration	: None known.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media suitable for surrounding fire or the cause of fire. Keep containers cool by spraying with water.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: When heated and in case of fire, harmful vapours/gases may be formed.
Reactivity in case of fire	: Corrosive vapours.
Hazardous decomposition products in case of fire	: Corrosive vapours.

5.3. Advice for firefighters

Firefighting instructions	: Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Protection during firefighting	: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid direct contact with skin, eyes and clothing. See exposure controls / personal protection (section 8).
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6.1.1. For non-emergency personnel

No additional information available

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6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Spillages or uncontrolled contamination of soil or discharges into watercourses, drains or sewers must be reported immediately to the Environment Agency, local water company or other appropriate regulatory bodies. Do not allow to contaminate vegetation, or enter drains or water courses.

6.3. Methods and material for containment and cleaning up

For containment : Small Spillages: Flush area to drain with plenty of water.
Large Spillages: Where possible, transfer to a container for reuse or disposal (see Disposal Considerations – Section 13). Contain and absorb using earth, sand or other inert material. Flush area to drain with plenty of water. Treat as industrial waste.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Avoid contact with eyes. Avoid inhalation of vapours. Eliminate all sources of ignition.

Precautions for safe handling : Avoid contact with skin, eyes and clothing. Avoid spilling. Avoid inhalation of vapours. Provide adequate ventilation. Avoid contact with skin and eyes. Handle carefully.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Keep container closed when not in use. Keep away from ignition sources. Keep away from children. Keep cool. Protect from sunlight.

Incompatible products : Strong bases.

Storage area : Store away from direct sunlight. Store away from heat. Keep away from food, drink and animal feedingstuffs. Materials to avoid: Oxidizing agents Acids Bases alkalis. Store in a well-ventilated place.

Special rules on packaging : Keep only in original container.

Packaging materials : Do not store in corrodable metal. Keep only in the original container in a cool, well-ventilated place away from combustible materials.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Keep in a cool place. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

Other information:

Wear protective clothing and closed footwear, impervious PVC rubber gloves, and approved chemical safety goggles or face protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear, colorless to pink liquid.
Colour : Colourless to pink.
Odour : Characteristic.
pH solution : 2 - 3 (at 0.5% solution)
Freezing point : 0 °C
Relative density : 1.18 - 1.22
Solubility : Soluble in water.
Viscosity, dynamic : < 100 cP

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive vapours. May be corrosive to metals.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Reacts violently with alkali products.

10.4. Conditions to avoid

Avoid alkaline conditions. Avoid contact with hot surfaces. Avoid formation of vapours. Avoid heat, flames and other sources of ignition. Direct sunlight.

10.5. Incompatible materials

Alkalines. Sodium Hypochlorite. May be corrosive to metals.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Harmful in contact with skin.
Toxicokinetics, metabolism and distribution	: No data available.
Experience with humans	: No data available
Other information	: We have not carried out any animal testing; as such we have no Toxicological Data particular to this product. The Toxicological Data, provided is supplied by the respective raw material manufacturer.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: No data available.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

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Waste treatment methods

: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Dissolve or mix with a combustible solvent. Remove to an incinerator for chlorinated waste materials with energy recovery. Do not discharge into drains or the environment. Do not discharge into surface water (Directive 2000/60/EC, Council Decision 2455/2001/EC).

Additional information

: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 3264
UN-No. (IMDG) : 3264
UN-No. (IATA) : 3264
UN-No. (ADN) : 3264
UN-No. (RID) : 3264

14.2. UN proper shipping name

Proper Shipping Name (ADR) : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ORTHOPHOSPHORIC ACID; SULPHURIC ACID)
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ORTHOPHOSPHORIC ACID; SULPHURIC ACID)
Proper Shipping Name (IATA) : Corrosive liquid, acidic, inorganic, n.o.s. (ORTHOPHOSPHORIC ACID; SULPHURIC ACID)
Proper Shipping Name (ADN) : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ORTHOPHOSPHORIC ACID; SULPHURIC ACID)
Proper Shipping Name (RID) : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ORTHOPHOSPHORIC ACID; SULPHURIC ACID)
Transport document description (ADR) : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II, (E)
Transport document description (IMDG) : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II
Transport document description (IATA) : UN 3264 Corrosive liquid, acidic, inorganic, n.o.s., 8, II
Transport document description (ADN) : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II
Transport document description (RID) : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8
Danger labels (ADR) : 8



IMDG

Transport hazard class(es) (IMDG) : 8
Danger labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8
Hazard labels (IATA) : 8



ADN

Transport hazard class(es) (ADN) : 8
Danger labels (ADN) : 8

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RID

Transport hazard class(es) (RID) : 8

Danger labels (RID) : 8



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C1

Special provisions (ADR) : 274

Limited quantities (ADR) : 1I

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02

Mixed packing provisions (ADR) : MP15

Portable tank and bulk container instructions (ADR) : T11

Portable tank and bulk container special provisions (ADR) : TP2, TP27

Tank code (ADR) : L4BN

Vehicle for tank carriage : AT

Transport category (ADR) : 2

Hazard identification number (Kemler No.) : 80

Orange plates : An orange rectangular label with a black border. The top half contains the number '80' in black, and the bottom half contains the number '3264' in black.

Tunnel restriction code (ADR) : E

EAC code : 2X

APP code : B

Transport by sea

Special provisions (IMDG) : 274

Packing instructions (IMDG) : P001

IBC packing instructions (IMDG) : IBC02

Tank instructions (IMDG) : T11

Tank special provisions (IMDG) : TP2, TP27

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-B

Stowage category (IMDG) : B

Stowage and handling (IMDG) : SW2

Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA) : E2

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PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L

Inland waterway transport

Classification code (ADN)	: C1
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: C1
Special provisions (RID)	: 274
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T11
Portable tank and bulk container special provisions (RID)	: TP2, TP27
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 80

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

Other information, restriction and prohibition regulations : This Safety Data Sheet prepared in accordance with REACH
- Regulation (EU) No 453/2010 (which amends Regulation (EC) No 1907/2006).
- Regulation (EC) No 1272/2008 Product Classification Labelling elements, Ingredients and lists their classification in GHS / CLP format.

Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

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SECTION 16: Other information

Abbreviations and acronyms:	
	<p>ATE: Acute Toxicity Estimate. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level. IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. Kow: Octanol-water partition coefficient. LC₅₀: Lethal Concentration to 50 % of a test population. LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose). PBT: Persistent, Bioaccumulative and Toxic substance. PNEC: Predicted No Effect Concentration. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. vPvB: Very Persistent and Very Bioaccumulative. IARC: International Agency for Research on Cancer. MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. cATpE: Converted Acute Toxicity Point Estimate. BCF: Bioconcentration Factor. BOD: Biochemical Oxygen Demand. EC₅₀: 50% of maximal Effective Concentration. LOAEC: Lowest Observed Adverse Effect Concentration. LOAEL: Lowest Observed Adverse Effect Level. NOAEC: No Observed Adverse Effect Concentration. NOAEL: No Observed Adverse Effect Level. NOEC: No Observed Effect Concentration. LOEC: Lowest Observed Effect Concentration. DMEL: Derived Minimal Effect Level. EL50: Exposure Limit 50 hPa: Hectopascal LL50: Lethal Loading fifty OECD: Organisation for Economic Co-operation and Development POW: Octanol-water partition coefficient SCBA: self-contained breathing apparatus STP: Sewage Treatment Plant VOC: Volatile Organic Compounds</p>

Data sources	: Material Safety Data Sheet, Misc. manufacturers. CLP Class - Table 3.1 List of harmonised classification and labelling of hazardous substances. CHIP Class - Table 3.2 The list of harmonised classification and labelling of hazardous substances from Annex I to Directive 67/548/EEC. ECHA - C&L Inventory database. REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Training advice	: Normal use of this product shall imply use in accordance with the instructions on the packaging.
Other information	: The Risk Phrases / Hazard Statements listed below in this Section No 16 relate to the Raw Materials (Ingredients) in the Product (as listed in Section 3) and NOT the product itself. For the Risk Phrases / Hazard Statements relating to this Product see Section 2. Legal Disclaimer : The above information is based on the present state of our knowledge of the product at the time of publication. It is given in good faith. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

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SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product