



SAFETY DATA SHEET STAINLESS STEEL CLEANER

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

1.1. Product identifier

Product name STAINLESS STEEL CLEANER
Product number A5701
Internal identification A072

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

Identified uses Cleaning agent.

1.3. Details of the supplier of the safety data sheet

Supplier ARROW SOLUTIONS
RAWDON ROAD
MOIRA
SWADLINCOTE
DERBYSHIRE
DE12 6DA
TEL: +44 (0)1283 221044
FAX: +44 (0)1283 225731
sales@arrowchem.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 777 8505 330

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards

Aerosol 1 - H222, H229

Health hazards

Eye Irrit. 2 - H319 Elicitation - EUH208

Environmental hazards

Not Classified

Classification (67/548/EEC or 1999/45/EC)

F+;R12.

2.2. Label elements

Pictogram



Signal word

Danger

Hazard statements

STAINLESS STEEL CLEANER

EUH208 Contains 2,2',2''-(HEXAHYDRO-1,3,5-TRIAZINE-1,3,5-TRIYL)TRIETHANOL. May produce an allergic reaction.
 H222 Extremely flammable aerosol.
 H229 Pressurised container: may burst if heated
 H319 Causes serious eye irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 P260 Do not breathe vapour/spray.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves.
 P501 Dispose of contents/container in accordance with national regulations.

Contains

HYDROCARBON PROPELLANT

Detergent labelling

15 - < 30% aliphatic hydrocarbons, < 5% non-ionic surfactants, Contains 2,2',2''-(HEXAHYDRO-1,3,5-TRIAZINE-1,3,5-TRIYL)TRIETHANOL, 1,2-BENZOISOTHIAZOL-3(2H)-ONE

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | | |
|---|--|---------------|
| REFINED MINERAL OIL | | 10-30% |
| CAS number: 8042-47-5 EC number: 232-455-8 REACH registration number: 01-2119487078-27-xxxx | | |
| Classification | Classification (67/548/EEC or 1999/45/EC) | |
| Asp. Tox. 1 - H304 | Xn;R65. | |
| HYDROCARBON PROPELLANT | | 10-30% |
| CAS number: 68476-85-7 EC number: 270-704-2 | | |
| Classification | Classification (67/548/EEC or 1999/45/EC) | |
| Flam. Gas 1 - H220 Press. Gas, Liquefied - H280 | F+;R12. | |
| ISOPARAFFINIC HYDROCARBON | | 5-10% |
| CAS number: — EC number: 923-037-2 REACH registration number: 01-2119471991-29-XXXX | | |
| Classification | Classification (67/548/EEC or 1999/45/EC) | |
| Flam. Liq. 3 - H226 Asp. Tox. 1 - H304 Aquatic Chronic 4 - H413 | Xn;R65. R10,R53,R66. | |

STAINLESS STEEL CLEANER

| | |
|---|--|
| ISOTRIDECETHANOL ETHOXYLATE 1-5% | |
| CAS number: 69011-36-5 EC number: 500-241-6 REACH registration number: 01-2119976362-32-xxxx | |
| Classification Eye Dam. 1 - H318 | Classification (67/548/EEC or 1999/45/EC) Xi;R41. |
| DIETHANOLAMINE <1% | |
| CAS number: 111-42-2 EC number: 203-868-0 REACH registration number: 01-2119488930-28-xxxx | |
| Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT RE 2 - H373 | Classification (67/548/EEC or 1999/45/EC) Xn;R22,R48/22 Xi;R38,R41 |
| 2,2',2''-(HEXAHYDRO-1,3,5-TRIAZINE-1,3,5-TRIYL)TRIETHANOL <1% | |
| CAS number: 4719-04-4 EC number: 225-208-0 | |
| Classification Acute Tox. 4 - H302 Skin Sens. 1 - H317 | Classification (67/548/EEC or 1999/45/EC) Xn;R22 R43 |

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

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation**

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Ingestion

Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues.

Skin contact

Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye contact

Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Vapours may cause drowsiness and dizziness.

Ingestion

May cause discomfort if swallowed.

Skin contact

Prolonged skin contact may cause redness and irritation.

Eye contact

Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed**Notes for the doctor**

No specific recommendations.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

STAINLESS STEEL CLEANER

Suitable extinguishing media

Extinguish with foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Extremely flammable aerosol. Pressurised container: may burst if heated

Hazardous combustion products

Thermal decomposition or combustion products may include the following substances: Ammonia or amines. Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3. Advice for firefighters

Protective actions during firefighting

Use water to keep fire exposed containers cool and disperse vapours.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Provide adequate ventilation. Wear protective gloves, eye and face protection.

6.2. Environmental precautions

Environmental precautions

Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Eliminate all sources of ignition. Provide adequate ventilation. Absorb spillage with inert, damp, non-combustible material.

6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Do not expose to temperatures exceeding 50°C/122°F. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container in a well-ventilated place. Provide adequate ventilation. Use only in well-ventilated areas. Do not breathe vapour/spray. Avoid contact with skin and eyes. Wear protective gloves. Wash hands thoroughly after handling. Do not pierce or burn, even after use.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store at temperatures between 4°C and 40°C.

Storage class

Flammable compressed gas storage.

7.3. Specific end use(s)

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

Occupational exposure limits

STAINLESS STEEL CLEANER

REFINED MINERAL OIL

Long-term exposure limit (8-hour TWA): 5 mg/m³ (Oil mist)

HYDROCARBON PROPELLANT

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1750 mg/m³

Short-term exposure limit (15-minute): WEL 1250 ppm 2180 mg/m³

ISOPARAFFINIC HYDROCARBON

Long-term exposure limit (8-hour TWA): WEL 1200 mg/m³

WEL = Workplace Exposure Limit

ISOPARAFFINIC HYDROCARBON

| | |
|------|--|
| DNEL | Industry - Inhalation; : N/A Industry - Dermal; : N/A Consumer - Inhalation; : N/A Consumer - Dermal; : N/A Consumer - Oral; : N/A |
|------|--|

| | |
|------|--|
| PNEC | - Fresh water; N/A - Marine water; N/A - Soil; N/A - Sediment; N/A - STP; N/A - Intermittent release; N/A |
|------|--|

TRIETHANOLAMINE (CAS: 102-71-6)

| | |
|------|--|
| DNEL | Workers - Inhalation; Long term systemic effects: 5.0 mg/m ³ Workers - Inhalation; Long term local effects: 5.0 mg/m ³ Workers - Dermal; Long term systemic effects: 6.3 mg/kg/day General population - Inhalation; Long term systemic effects: 1.25 mg/m ³ General population - Inhalation; Long term local effects: 1.25 mg/m ³ General population - Dermal; Long term systemic effects: 3.1 mg/kg/day General population - Oral; Long term systemic effects: 13.0 mg/kg/day |
|------|--|

| | |
|------|--|
| PNEC | - Fresh water; 0.32 mg/l - Marine water; 0.032 mg/l - Intermittent release; 5.12 mg/l - STP; 10.0 mg/l - Sediment (Freshwater); 1.7 mg/kg - Sediment (Marinewater); 0.17 mg/kg - Soil; 0.151 mg/kg |
|------|--|

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Tight-fitting safety glasses.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC).

Hygiene measures

STAINLESS STEEL CLEANER

Wash hands thoroughly after handling.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Aerosol.

Odour

Mild.

Solubility(ies)

Soluble in water.

9.2. Other information

Other information

Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability

Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Not determined.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid

No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Thermal decomposition or combustion products may include the following substances: Ammonia or amines. Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation

Vapours may cause drowsiness and dizziness.

Ingestion

May cause discomfort if swallowed.

Skin contact

Repeated exposure may cause skin dryness or cracking.

Eye contact

Causes serious eye irritation.

Toxicological information on ingredients.

STAINLESS STEEL CLEANER
REFINED MINERAL OIL

Toxicological effects

No information available.

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)

5,000.0

Species

Rat

No information available.

ATE oral (mg/kg)

5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg)

2000.10

Species

Rabbit

No information available.

ATE dermal (mg/kg)

2000.10

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l)

5000.0

Species

Rat

No information available.

ATE inhalation (vapours mg/l)

5000.0

Skin corrosion/irritation

Animal data

Not irritating.

Skin sensitisation

- : No information available.

Carcinogenicity

No information available.

Reproductive toxicity

Reproductive toxicity - fertility

No information available.

Reproductive toxicity - development

No information available.

Specific target organ toxicity - single exposure

STOT - single exposure

No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure

No information available.

STAINLESS STEEL CLEANER
HYDROCARBON PROPELLANT

Toxicological effects

No information available.

Acute toxicity - inhalation**Acute toxicity inhalation (LC₅₀ vapours mg/l)**

20.01

Species

Rat

ATE inhalation (vapours mg/l)

20.01

Reproductive toxicity**Reproductive toxicity - development**

No information available.

ISOPARAFFINIC HYDROCARBON

Acute toxicity - oral**Acute toxicity oral (LD₅₀ mg/kg)**

5,000.0

Species

Rat

Estimated value.

ATE oral (mg/kg)

5,000.0

Acute toxicity - dermal**Acute toxicity dermal (LD₅₀ mg/kg)**

5000.0

Species

Rat

ATE dermal (mg/kg)

5000.0

Acute toxicity - inhalation

Estimated value.

ISOTRIDECETHANOL ETHOXYLATE

Acute toxicity - oral**Acute toxicity oral (LD₅₀ mg/kg)**

2,001.0

Species

Rat

Acute toxicity - dermal**Acute toxicity dermal (LD₅₀ mg/kg)**

2001.0

Species

Rabbit

Reproductive toxicity**Reproductive toxicity - fertility**

Two-generation study - NOAEL 250 mg/kg, Oral, Rabbit P

STAINLESS STEEL CLEANER**DIETHANOLAMINE****Acute toxicity - oral****Acute toxicity oral (LD₅₀ mg/kg)**

780.0

Species

Rat

ATE oral (mg/kg)

780.0

Skin sensitisation

Not sensitising.

Germ cell mutagenicity**Genotoxicity - in vitro**

: Negative.

2,2',2''-(HEXAHYDRO-1,3,5-TRIAZINE-1,3,5-TRIYL)TRIETHANOL**Acute toxicity - oral****Acute toxicity oral (LD₅₀ mg/kg)**

860.0

Species

Rat

ATE oral (mg/kg)

860.0

Acute toxicity - dermal**Acute toxicity dermal (LD₅₀ mg/kg)**

4000.0

Species

Rabbit

ATE dermal (mg/kg)

4000.0

SECTION 12: Ecological Information**Ecotoxicity**

The product is not expected to be hazardous to the environment.

12.1. Toxicity**Acute toxicity - fish**

Not determined.

STAINLESS STEEL CLEANER

Ecological information on ingredients.

REFINED MINERAL OIL

Acute toxicity - fish

Not available.

Acute toxicity - aquatic plants

Not available.

Acute toxicity - microorganisms

Not available.

HYDROCARBON PROPELLANT

Acute toxicity - fish

Not determined.

ISOTRIDECETHANOL ETHOXYLATE

Acute toxicity - fish

LC50, 96 hours: 1-10 mg/l, Cyprinus carpio (Common carp)

Acute toxicity - aquatic invertebrates

EC50, 48 hours: 1-10 mg/l, Daphnia magna

Acute toxicity - aquatic plants

EC50, 72 hours: > 1-10 mg/l, Freshwater algae

Acute toxicity - microorganisms

EC50, : 140 mg/l, Activated sludge

DIETHANOLAMINE

Acute toxicity - fish

LC50, 96 hours: > 100 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates

EC50, 48 hours: > 10 - 100 mg/l, Daphnia magna

Chronic toxicity - aquatic invertebrates

NOEC, 21 days: 0.78 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability

The product is expected to be biodegradable.

Ecological information on ingredients.

ISOPARAFFINIC HYDROCARBON

Persistence and degradability

The product is expected to be biodegradable.

ISOTRIDECETHANOL ETHOXYLATE

Persistence and degradability

Readily biodegradable

12.3. Bioaccumulative potential

The product is not bioaccumulating.

STAINLESS STEEL CLEANER

Ecological information on ingredients.

ISOPARAFFINIC HYDROCARBON

No data available on bioaccumulation.

ISOTRIDECETHANOL ETHOXYLATE

No bioaccumulation is expected.

DIETHANOLAMINE

The product is not bioaccumulating.

12.4. Mobility in soil

Mobility

The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces. The product is soluble in water.

Ecological information on ingredients.

ISOPARAFFINIC HYDROCARBON

Mobility

The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

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

Ecological information on ingredients.

ISOPARAFFINIC HYDROCARBON

This substance is not classified as PBT or vPvB according to current EU criteria.

DIETHANOLAMINE

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Not determined.

Ecological information on ingredients.

ISOPARAFFINIC HYDROCARBON

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

| | |
|------------------|------|
| UN No. (ADR/RID) | 1950 |
| UN No. (IMDG) | 1950 |
| UN No. (ICAO) | 1950 |
| UN No. (ADN) | 1950 |

14.2. UN proper shipping name

| | |
|--------------------------------|----------|
| Proper shipping name (ADR/RID) | AEROSOLS |
| Proper shipping name (IMDG) | AEROSOLS |

STAINLESS STEEL CLEANER

Proper shipping name (ICAO) AEROSOLS

Proper shipping name (ADN) AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class 2.1

IMDG class 2.1

ICAO class/division 2.1

ADN class 2.1

Transport labels**14.4. Packing group**

ADR/RID packing group 5F

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Tunnel restriction code (D)

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

Not applicable.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations**

Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation

Commission Regulation (EU) No 453/2010 of 20 May 2010. 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 (as amended).

Guidance

Workplace Exposure Limits EH40.

15.2. Chemical safety assessment**SECTION 16: Other information****Revision comments**

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 20/02/2015

Revision 2.0

Supersedes date 28/08/2012

Risk phrases in full

R10 Flammable.

R12 Extremely flammable.

R41 Risk of serious damage to eyes.

R53 May cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

STAINLESS STEEL CLEANER

Hazard statements in full

EUH208 Contains 2,2',2''-(HEXAHYDRO-1,3,5-TRIAZINE-1,3,5-TRIYL)TRIETHANOL. May produce an allergic reaction.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.