



## 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**

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

**STAINLESS STEEL CLEANER**

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

### 5.3. Advice for firefighters

#### Protective actions during firefighting

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

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## SECTION 6: Accidental release measures

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### 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.

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## SECTION 7: Handling and storage

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### 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.

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## SECTION 8: Exposure Controls/personal protection

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### 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
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PNEC	- Fresh water; N/A - Marine water; N/A - Soil; N/A - Sediment; N/A - STP; N/A - Intermittent release; N/A
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#### TRIETHANOLAMINE (CAS: 102-71-6)

DNEL	Workers - Inhalation; Long term systemic effects: 5.0 mg/m <sup>3</sup> Workers - Inhalation; Long term local effects: 5.0 mg/m <sup>3</sup> Workers - Dermal; Long term systemic effects: 6.3 mg/kg/day General population - Inhalation; Long term systemic effects: 1.25 mg/m <sup>3</sup> General population - Inhalation; Long term local effects: 1.25 mg/m <sup>3</sup> General population - Dermal; Long term systemic effects: 3.1 mg/kg/day General population - Oral; Long term systemic effects: 13.0 mg/kg/day
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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
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### 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 (CO<sub>2</sub>).

### 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 (LD<sub>50</sub> mg/kg)**

5,000.0

**Species**

Rat

No information available.

**ATE oral (mg/kg)**

5,000.0

**Acute toxicity - dermal****Acute toxicity dermal (LD<sub>50</sub> mg/kg)**

2000.10

**Species**

Rabbit

No information available.

**ATE dermal (mg/kg)**

2000.10

**Acute toxicity - inhalation****Acute toxicity inhalation (LC<sub>50</sub> 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 (LC<sub>50</sub> 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 (LD<sub>50</sub> mg/kg)**

5,000.0

**Species**

Rat

Estimated value.

**ATE oral (mg/kg)**

5,000.0

**Acute toxicity - dermal****Acute toxicity dermal (LD<sub>50</sub> 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 (LD<sub>50</sub> mg/kg)**

2,001.0

**Species**

Rat

**Acute toxicity - dermal****Acute toxicity dermal (LD<sub>50</sub> 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 (LD<sub>50</sub> 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 (LD<sub>50</sub> mg/kg)**

860.0

**Species**

Rat

**ATE oral (mg/kg)**

860.0

**Acute toxicity - dermal****Acute toxicity dermal (LD<sub>50</sub> mg/kg)**

4000.0

**Species**

Rabbit

**ATE dermal (mg/kg)**

4000.0

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**SECTION 12: Ecological Information**

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**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**

EC<sub>50</sub>, 48 hours: 1-10 mg/l, Daphnia magna

**Acute toxicity - aquatic plants**

EC<sub>50</sub>, 72 hours: > 1-10 mg/l, Freshwater algae

**Acute toxicity - microorganisms**

EC<sub>50</sub>, : 140 mg/l, Activated sludge

#### DIETHANOLAMINE

**Acute toxicity - fish**

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

**Acute toxicity - aquatic invertebrates**

EC<sub>50</sub>, 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.

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## SECTION 13: Disposal considerations

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### 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.

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## SECTION 14: Transport information

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### 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.