SAFETY DATA SHEET
STAINLESS STEEL CLEANER

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

1.1. Product identifier

Product name STAINLESS STEEL CLEANER

Internal identification A072

UFI UFI: KFSG-C0NX-U00K-JE1Y

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

Identified uses Cleaning agent.

Uses advised against Use only for intended applications.

1.3. Details of the supplier of the safety data sheet

Supplier

ARROW SOLUTIONS
RAWDON ROAD,
MOIRA,
SWADLINCOTE,
DERBYSHIRE,
DE12 6DA,
ENGLAND
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 (24 hrs).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Aerosol 1 - H222, H229

Health hazards Not Classified

Environmental hazards Aquatic Chronic 3 - H412

2.2. Label elements

Hazard pictograms

Signal word Danger

STAINLESS STEEL CLEANER

Hazard statements	H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated. H412 Harmful to aquatic life with long lasting effects.
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. P273 Avoid release to the environment. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P501 Dispose of contents/ container in accordance with national regulations.
UFI	UFI: KFSG-C0NX-U00K-JE1Y
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
Asp. Tox. 1 - H304

Petroleum gases, liquefied **10-30%**

CAS number: 68476-85-7 EC number: 270-704-2

Classification
Flam. Gas 1A - H220
Press. Gas (Liq.) - H280

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics **5-10%**

CAS number: 90622-57-4 EC number: 923-037-2 REACH registration number: 01-2119471991-29-XXXX

Classification
Flam. Liq. 3 - H226
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

STAINLESS STEEL CLEANER

ISOTRIDECANOL ETHOXYLATE	1-5%
CAS number: 69011-36-5	

Classification
Eye Irrit. 2 - H319
Aquatic Chronic 3 - H412

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

General information In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Show this Safety Data Sheet to the medical personnel.

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.

Skin contact Rinse immediately with plenty of water.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse. Get medical attention if any discomfort continues.

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

Inhalation Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact Prolonged contact may cause dryness of the skin.

Eye contact May cause discomfort.

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

Suitable extinguishing media Extinguish with alcohol-resistant 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). Nitrous gases (NOx).

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to flames with water until well after the fire is out.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

STAINLESS STEEL CLEANER

Personal precautions Ensure procedures and training for emergency decontamination and disposal are in place. No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Evacuate area. No smoking, sparks, flames or other sources of ignition near spillage. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Provide adequate ventilation. Do not touch or walk into spilled material. Avoid contact with skin, eyes and clothing. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Do not handle broken packages without protective equipment. Wash thoroughly after dealing with a spillage.

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 ignition sources if safe to do so. Provide adequate ventilation. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Clean contaminated objects and areas thoroughly, observing environmental regulations. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not expose to temperatures exceeding 50°C/122°F. Keep container in a well-ventilated place. Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients. Avoid contact with skin, eyes and clothing. Wear protective gloves. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Do not eat, drink or smoke when using this product. Do not empty into drains. Avoid release to the environment. Avoid contact with contaminated tools and objects. Do not handle broken packages without protective equipment. Wash hands thoroughly after handling.

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. Do not expose to temperatures exceeding 50°C/122°F.

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

REFINED MINERAL OIL

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

Petroleum gases, liquefied

STAINLESS STEEL CLEANER

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

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics

Long-term exposure limit (8-hour TWA): WEL 1200 mg/m³ vapour
WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment

Appropriate engineering controls

Observe any occupational exposure limits for the product or ingredients.

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. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 4 hours. The breakthrough time for any glove material may be different for different glove manufacturers. When used with mixtures, the protection time of gloves cannot be accurately estimated. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Protective gloves should have a minimum thickness of 0.15 mm. Glove thickness is not necessarily a good measure of glove resistance as the permeation rate will depend on the exact glove composition. The choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Repeated exposure to chemicals will degrade the ability of the glove to provide resistance to chemicals. Specific work environments and material handling practices may vary, therefore safety procedures should be developed for each intended application. Gloves made from the following material may provide suitable chemical protection: Nitrile rubber. Rubber (natural, latex). Neoprene.

Hygiene measures

Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

Respiratory protection

No specific requirements are anticipated under normal conditions of use. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Ensure all respiratory protective equipment is suitable for its intended use and is ‘CE’-marked. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Particulate filters should comply with European Standard EN143. Disposable filtering half mask respirators should comply with European Standard EN149 or EN405. Gas and combination filter cartridges should comply with European Standard EN14387. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P2. Organic vapour + dust and mist filter.

STAINLESS STEEL CLEANER

Environmental exposure controls	Store in a demarcated bunded area to prevent release to drains and/or watercourses. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Off-white.
Odour	Hydrocarbons.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	Not determined.
Vapour pressure	Not determined.
Relative density	Not determined.
Solubility(ies)	Slightly soluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not applicable.
Viscosity	Not determined.
Explosive properties	There are no chemical groups present in the product that are associated with explosive properties.
Oxidising properties	The product contains a substance classified as oxidising. Does not meet the criteria for classification as oxidising.
Comments	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.

9.2. Other information

Other information	Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

STAINLESS STEEL CLEANER

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not determined.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid Flammable/combustible materials.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not relevant.

STAINLESS STEEL CLEANER

Inhalation	Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	Gastrointestinal symptoms, including upset stomach.
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	May cause discomfort.
Acute and chronic health hazards	Defatting, drying and cracking of skin. Headache.
Route of exposure	Dermal Inhalation
Target organs	Skin

Toxicological information on ingredients.

REFINED MINERAL OIL

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	5,000.0
Species	Rat
ATE oral (mg/kg)	5,000.0
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	2,000.1
Species	Rabbit
ATE dermal (mg/kg)	2,000.1
Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} vapours mg/l)	5,000.0
Species	Rat
ATE inhalation (vapours mg/l)	5,000.0

Petroleum gases, liquefied

Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} vapours mg/l)	21.6
Species	Rat
ATE inhalation (vapours mg/l)	21.6

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	5,000.1

STAINLESS STEEL CLEANER

Species	Rat
ATE oral (mg/kg)	5,000.1
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	5,000.1
Species	Rat
ATE dermal (mg/kg)	5,000.1
Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} dust/mist mg/l)	5.1
Species	Rat
ATE inhalation (dusts/mists mg/l)	5.1

ISOTRIDECANOL ETHOXYLATE

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	5,001.0
Species	Rat
ATE oral (mg/kg)	5,001.0
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	2,001.0
Species	Rabbit
Reproductive toxicity	
Reproductive toxicity - fertility	Two-generation study - NOAEL 250 mg/kg, Oral, Rabbit P

SECTION 12: Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish Not determined.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage Not determined.

Ecological information on ingredients.

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics

Acute aquatic toxicity	
Acute toxicity - fish	LC_{50}, 96 hours: 1000 mg/kg, Oncorhynchus mykiss (Rainbow trout)

STAINLESS STEEL CLEANER

Acute toxicity - aquatic invertebrates	EC_0, 48 hours: 1000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_0, 72 hours: 1000 mg/l, Pseudokirchneriella subcapitata NOEC, 72 hours: 1000 mg/l, Pseudokirchneriella subcapitata
Chronic aquatic toxicity	
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: <1 mg/l, Daphnia magna

ISOTRIDECANOL ETHOXYLATE

Acute aquatic toxicity	
Acute toxicity - fish	LC50, 96 hours: 1-10 mg/l, Cyprinus carpio (Common carp)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 1-10 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: > 1-10 mg/l, Freshwater algae
Acute toxicity - microorganisms	EC_{50}, : 140 mg/l, Activated sludge

12.2. Persistence and degradability

Persistence and degradability The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient Not determined.

12.4. Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces. The product is partly soluble in water and may spread in the aquatic environment.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

SECTION 14: Transport information

General For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

Special Provisions note

14.1. UN number

STAINLESS STEEL CLEANER

UN No. (ADR/RID)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AEROSOLS
Proper shipping name (IMDG)	AEROSOLS
Proper shipping name (ICAO)	AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID classification code	5F
ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1

Transport labels

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-D, S-U
ADR transport category	2
Tunnel restriction code	(D)

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

Transport in bulk according to Annex II of MARPOL 73/78 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).

STAINLESS STEEL CLEANER

EU legislation

Council Directive of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC) (as amended).
Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
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

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service.
EC_{50}: 50% of maximal Effective Concentration.
IARC: International Agency for Research on Cancer.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
LC_{50}: Lethal Concentration to 50 % of a test population.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
UN: United Nations.
vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Aerosol = Aerosol
Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Asp. Tox. = Aspiration hazard
Eye Irrit. = Eye irritation
Flam. Gas = Flammable gas
Flam. Liq. = Flammable liquid
Press. Gas (Liq.) = Gas under pressure: Liquefied gas

Classification procedures according to Regulation (EC) 1272/2008

Aerosol 1 - H222, H229: Bridging principle (Aerosols). Aquatic Chronic 3 - H412: Calculation method.

Revision comments

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

Revision date

14/04/2021

Revision

5.0

Supersedes date

05/12/2018

SDS number

12258

STAINLESS STEEL CLEANER

Hazard statements in full

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H226 Flammable liquid and vapour.
H229 Pressurised container: may burst if heated.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.