

SAFETY DATA SHEET AIRCRAFT CLEANER 281

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 AIRCRAFT CLEANER 281

Internal identification C034

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

Identified uses Cleaning agent.

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

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 Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Environmental hazards Not Classified

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements H315 Causes skin irritation.

H318 Causes serious eye damage.

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Precautionary statements P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P280 Wear protective gloves, eye and face protection. P310 Immediately call a POISON CENTER/ doctor.

P501 Dispose of contents/ container in accordance with national regulations.

Contains DISODIUM METASILICATE, ISOTRIDECANOL ETHOXYLATE

Detergent labelling < 5% amphoteric surfactants, < 5% non-ionic surfactants

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

DIPROPYLENE GLYCOL n-BUTYL ETHER 1-5%

CAS number: 29911-28-2 EC number: 249-951-5 REACH registration number: 01-

2119451543-42-XXXX

Classification

Not Classified

SODIUM BENZOATE 1-5%

CAS number: 532-32-1 EC number: 208-534-8

Classification

Eye Irrit. 2 - H319

DISODIUM METASILICATE 1-5%

CAS number: 6834-92-0 EC number: 229-912-9 REACH registration number: 01-

2119449811-37-XXXX

Classification

Met. Corr. 1 - H290 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335

ISOTRIDECANOL ETHOXYLATE 1-5%

CAS number: 69011-36-5 EC number: 931-138-8

Classification

Eye Dam. 1 - H318 Aquatic Chronic 3 - H412

SODIUM COCOPROPYLENEDIAMINE 1-5%

CAS number: 97659-50-2 EC number: 307-455-7

Classification

Eye Irrit. 2 - H319

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SODIUM SILICATE 1-5%

CAS number: 1344-09-8 EC number: 215-687-4 REACH registration number: 01-

2119448725-31-XXXX

Classification

Skin Irrit. 2 - H315 Eye Dam. 1 - H318

AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL,

<1%

N-OXIDES

CAS number: 308062-28-4 EC number: 931-292-6 REACH registration number: 01-

2119490061-47-XXXX

M factor (Acute) = 1

Classification

Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318

Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411

C13-15 ALCOHOL ETHOXYLATE 11EO

<1%

CAS number: 157627-86-6

M factor (Acute) = 1

Classification

Eye Dam. 1 - H318 Aquatic Acute 1 - H400 Aquatic Chronic 3 - H412

BENZOTRIAZOLE <1%

CAS number: 95-14-7 EC number: 202-394-1 REACH registration number: 01-

2119979079-20-XXXX

Classification

Acute Tox. 4 - H302 Eye Irrit. 2 - H319 Aquatic Chronic 2 - H411

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE

<1%

CAS number: 64-02-8 EC number: 200-573-9 REACH registration number: 01-

2119486762-27-XXXX

Classification

Acute Tox. 4 - H302

Acute Tox. 4 - H332

Eye Dam. 1 - H318

STOT RE 2 - H373

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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 Show this Safety Data Sheet to the medical personnel. If medical advice is needed, have

product container or label at hand.

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 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 immediately.

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

Inhalation Coughing, chest tightness, feeling of chest pressure.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact Causes skin irritation.

Eye contact Causes serious eye damage.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

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

No specific firefighting precautions known.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots,

clothing or apron, as appropriate. Avoid contact with eyes and prolonged skin contact. Do not touch or walk into spilled material. Take care as floors and other surfaces may become slippery. Avoid contact with contaminated tools and objects. 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

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Methods for cleaning up

Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Absorb spillage with inert, damp, non-combustible 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. 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 Wear protective gloves, eye and face protection. Avoid contact with skin, eyes and clothing.

Do not reuse empty containers. Do not use in paint spraying equipment. Do not empty into drains. Do not eat, drink or smoke when using this product. 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 Store at temperatures between 4°C and 40°C.

Storage class Chemical 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

DIPROPYLENE GLYCOL n-BUTYL ETHER (CAS: 29911-28-2)

DNEL Professional - Dermal; Long term systemic effects: 3 mg/kg/day

Professional - Inhalation; Long term systemic effects: 10 mg/m³ Consumer - Dermal; Long term systemic effects: 1.1 mg/kg/day Consumer - Inhalation; Long term systemic effects: 1.2 mg/m³ Consumer - Oral; Long term systemic effects: 7.5 mg/kg/day

PNEC - Fresh water; 0.519 mg/l

- Marine water; .0519 mg/l

- Sediment (Freshwater); 2.96 mg/kg

Soil; 0.287 mg/kgSTP; 100 mg/l

- Sediment (Marinewater); 0.296 mg/kg

- Intermittent release; 5.19 mg/l

DISODIUM METASILICATE (CAS: 6834-92-0)

DNEL Industry - Dermal; Long term : 1.49 mg/kg/day

Industry - Inhalation; Long term: 6.22 mg/m³
Consumer - Dermal; Long term: 0.74 mg/kg/day
Consumer - Inhalation; Long term: 1.55 mg/m³

Consumer - Oral; Long term: 0.74

Amides, C8-18 (even numbers) and C18-unsatd, N,N-bis(hydroxyethyl) (CAS: 68155-07-7)

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DNEL Industry - Dermal; Long term systemic effects: 4.16 mg/kg/day

Industry - Inhalation; Long term systemic effects: 73.4 mg/m³ Consumer - Dermal; Long term systemic effects: 2.5 mg/kg/day Consumer - Inhalation; Long term systemic effects: 21.73 mg/m³ Consumer - Oral; Long term systemic effects: 6.25 mg/kg/day

PNEC - Fresh water; 0.007 mg/l

- Marine water; 0.0007 mg/l - Intermittent release; 0.0024 mg/l

- STP; 830 mg/l - Soil; 0.0348 mg/l

Sediment (Freshwater); 0.195 mg/kgSediment (Marinewater); 0.0195 mg/kg

AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL, N-OXIDES (CAS: 308062-28-4)

DNEL Workers - Dermal; systemic effects: 11 mg/kg/day

Workers - Inhalation; Long term systemic effects: 15.5 mg/m³

Workers - Dermal; local effects: 0.27 %

General population - Dermal; Long term systemic effects: 5.5 mg/kg/day General population - Inhalation; Long term systemic effects: 1.53 mg/m³ General population - Oral; Long term systemic effects: 0.44 mg/kg/day

PNEC - Fresh water; 0.0335 mg/l

- Marine water; 0.00335 mg/l

Water, Intermittent release; 0.0335 mg/l
Sediment (Freshwater); 5.24 mg/kg
Sediment (Marinewater); 0.524 mg/l

Soil; 1.02 mg/kgSTP; 24 mg/kg

C13-15 ALCOHOL ETHOXYLATE 11EO (CAS: 157627-86-6)

DNEL General population - Oral; Long term systemic effects: 25 mg/kg/day

General population - Dermal; Long term systemic effects: 1250 mg/kg/day General population - Inhalation; Long term systemic effects: 87 mg/m³ Workers - Dermal; Long term systemic effects: 2080 mg/kg/day

BENZOTRIAZOLE (CAS: 95-14-7)

DNEL Consumer - Oral; Long term systemic effects: 0.54 mg/kg

Consumer - Dermal; Long term systemic effects: 0.54 mg/kg Workers - Dermal; Long term systemic effects: 1.08 mg/kg Consumer - Inhalation; Long term systemic effects: 9.55 mg/m³ Workers - Inhalation; Long term systemic effects: 19.0 mg/m³

PNEC - Fresh water; 0.0194 mg/l

Intermittent release; 0.158 mg/lMarine water; 0.0194 mg/l

Sediment (Freshwater); 0.00375 mg/lSediment (Marinewater); 0.00375 mg/l

Soil; 0.003 mg/lSTP; 39.4 mg/l

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (CAS: 64-02-8)

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DNEL Workers - Inhalation; Long term systemic effects, local effects: 1.5 mg/m³

Workers - Inhalation; Short term systemic effects, local effects: 3 mg/m³ Consumer - Inhalation; Long term local effects, systemic effects: 0.6 mg/m³ Consumer - Inhalation; Short term local effects, systemic effects: 1.2 mg/m³

Consumer - Oral; Long term systemic effects, local effects: 25 mg/m³

PNEC - Fresh water; 2.2 mg/l

Marine water; 0.22 mg/lIntermittent release; 1.2 mg/l

STP; 43 mg/lSoil; 0.72 mg/kg

8.2. Exposure controls

Protective equipment





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: Chemical splash goggles. 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. To protect hands from chemicals, gloves should comply with European Standard EN374. 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. 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. For work of short duration or where a high degree of manual dexterity is needed, use protective gloves made of: Rubber (natural, latex). Neoprene. Nitrile rubber. 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.

Other skin and body protection

Provide eyewash station.

Hygiene measures

Wash hands after handling.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Liquid.

Colour Straw.

Odour Mild.

pH pH (concentrated solution): 12.7

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Relative density 1.05 @ 20°C

Solubility(ies) Completely soluble in water.

9.2. Other information

Other information Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

ReactivityThere 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

Possibility of hazardous

Not determined.

reactions

10.4. Conditions to avoid

Conditions to avoid There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials to avoid Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition Thermal decomposition or combustion products may include the following substances:

products Ammonia or amines. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Skin corrosion/irritation

Skin corrosion/irritation Read-across data. Not corrosive to skin.

Extreme pH ≥ 11.5 Not corrosive to skin.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Inhalation Coughing, chest tightness, feeling of chest pressure.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact Causes skin irritation.

Eye contact Causes serious eye damage.

Toxicological information on ingredients.

DIPROPYLENE GLYCOL n-BUTYL ETHER

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 3,700.0

mg/kg)

Species Rat

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ATE oral (mg/kg) 3,700.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,001.0

mg/kg)

Species Rat

SODIUM BENZOATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 2,001.0

mg/kg)

Species Rat

Notes (oral LD50)

ATE oral (mg/kg) 2,001.0

DISODIUM METASILICATE

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 5,000.0

mg/kg)

Species Rat

ATE dermal (mg/kg) 5,000.0

SODIUM COCOPROPYLENEDIAMINE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 5,000.0

mg/kg)

Species Rat

Notes (oral LD₅₀)

SODIUM SILICATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 1,300.0

mg/kg)

Species Rat

AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL, N-OXIDES

Acute toxicity - oral

Acute toxicity oral (LD50

y oral (LD₅₀ 1,680.0

mg/kg)

Species Rat

Notes (oral LD50)

ATE oral (mg/kg) 1,680.0

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Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,000.01

mg/kg)

Species Rat

2,000.01 ATE dermal (mg/kg)

C13-15 ALCOHOL ETHOXYLATE 11EO

Acute toxicity - oral

Acute toxicity oral (LD50 5,000.0

mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,001.0

mg/kg)

Rat **Species**

BENZOTRIAZOLE

Acute toxicity - oral

Acute toxicity oral (LD50 560.0

mg/kg)

Species Rat

560.0 ATE oral (mg/kg)

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,000.1

mg/kg)

Species Rabbit

ATE dermal (mg/kg) 2,000.1

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE

Acute toxicity - oral

Acute toxicity oral (LD₅o 1,780.0

mg/kg)

Species Rat

ATE oral (mg/kg) 1,780.0

Acute toxicity - inhalation

Notes (inhalation LC50)

ATE inhalation (gases

ppm)

11,250.0

ATE inhalation (vapours

mg/l)

27.5

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ATE inhalation (dusts/mists mg/l)

3.75

SECTION 12: Ecological Information

Ecotoxicity Not regarded as dangerous for the environment.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish Not determined.

Ecological information on ingredients.

DIPROPYLENE GLYCOL n-BUTYL ETHER

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 841 mg/l, Poecilia reticulata (Guppy)

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: > 1000 mg/l, Daphnia magna

SODIUM BENZOATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >10 mg/l, Fish

DISODIUM METASILICATE

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 180 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic

invertebrates

 EC_{50} , 48 hours: 1700 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅₀, 72 hours: 207 mg/l, Scenedesmus subspicatus

ISOTRIDECANOL ETHOXYLATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 1 - 10 mg/l mg/l, Fish

Acute toxicity - aquatic

invertebrates

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

SODIUM COCOPROPYLENEDIAMINE

Acute aquatic toxicity

Acute toxicity - fish

LC50, 96 hours: 4 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 1.6 mg/l, Daphnia magna

AMINES, C12-14 (EVEN NUMBERED)-ALKYLDIMETHYL, N-OXIDES

Acute aquatic toxicity

LE(C)₅₀ $0.1 < L(E)C50 \le 1$

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M factor (Acute) 1

LC₅₀, 96 hours: 2.67 mg/l, Fish Acute toxicity - fish

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 3.1 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅₀, 72 hours: 0.146 mg/l, Algae

Chronic aquatic toxicity

Chronic toxicity - fish early NOEC, 302 days: 0.42 mg/l, Fish

life stage

Chronic toxicity - aquatic

invertebrates

NOEC, 21 days: 0.7 mg/l, Daphnia magna

C13-15 ALCOHOL ETHOXYLATE 11EO

Acute aquatic toxicity

 $0.1 < L(E)C50 \le 1$ LE(C)50

M factor (Acute)

Acute toxicity - fish LC50, 96 hours: 1 - 10 mg/l,

Acute toxicity - aquatic

invertebrates

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

BENZOTRIAZOLE

Acute aquatic toxicity

LC₅₀, 96 hours: >25 mg/l, Fish Acute toxicity - fish

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 91 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

IC₅₀, 72 hours: 231 mg/l, Algae

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: > 100 mg/l, Lepomis macrochirus (Bluegill)

Acute toxicity - aquatic

invertebrates

EC₅o, 48 hours: >100 mg/l, Daphnia magna

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.

12.4. Mobility in soil

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

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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 methodsDisposal 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 The product is not covered by international regulations on the transport of dangerous goods

(IMDG, IATA, ADR/RID).

Special Provisions note

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

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 Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March

2004 on detergents (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).

Commission Regulation (EU) No 453/2010 of 20 May 2010. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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Guidance Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

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.

DNEL: Derived No Effect Level.

EC₅₀: 50% of maximal Effective Concentration.

IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods.

 $LC_{50}{:}\;\;Lethal\;Concentration\;to\;50\;\%$ of a test population.

LD₅o: 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. UN: United Nations.

vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations

and acronyms

Acute Tox. = Acute toxicity

Aquatic Acute = Hazardous to the aquatic environment (acute)

Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Eye Dam. = Serious eye damage

Eye Irrit. = Eye irritation

Met. Corr. = Corrosive to metals Skin Corr. = Skin corrosion Skin Irrit. = Skin irritation

STOT RE = Specific target organ toxicity-repeated exposure STOT SE = Specific target organ toxicity-single exposure

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

Revision date 10/12/2018

Revision 4.0

Supersedes date 07/08/2017

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Hazard statements in full H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs (Respiratory system, lungs) through prolonged or

repeated exposure.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

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.