### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 First edition: 1/06/2021 Last revision: 26/11/2024 Supersedes version of: 12/04/2023 Version: 2.1

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

#### 1.1. Product identifier

Product form : Mixture

Name : Decarbonizer Foam
Product number : 04.2114.9999

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

#### Relevant identified uses

Main use category : Industrial use, Professional use

Use of the substance or preparation : Removes combustion/oil residues that have deposited on parts such as burners of central heating systems and parking heaters, intake manifolds, valves of combustion engines,

EGR valves and on the outside of the engine block itself. Also effective for removing bioethanol oxidation (green deposits) in the float chamber of carburettors.

#### 1.3. Details of the supplier of the safety data sheet

PCS Innotec International NV

Schans 4

BE - 2480 Dessel T.: +32 (0) 14 32 60 01 F.: +32 (0) 14 32 60 12 hse@innotec.eu

Distributor:

Innotec Supplies Ltd.

Unit 25 Glenmore Business Park,

Telford RD

UK - SP2 7GL Salisbury, Wiltshire

T.: +44 (0)1722411744 info@innotecworld.com

#### 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):

BIG: +32 (0) 14 58 45 45

#### **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

## Classification according to Regulation (EC) no 1272/2008 (CLP)

Aerosol 1 H222;H229
Skin Corr. 1B H314
Eye Dam. 1 H318
Full text of hazard classes, H- and EUH-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) :





GHS02

GHS05

Signal word (CLP) : Danger

Contains : C6 Alkyl glucoside; Alcohol ethoxylate; 2-Aminoethanol

Hazard statements (CLP) : H222 - Extremely flammable aerosol.

H229 - Pressurised container: May burst if heated. H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) : 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. P260 - Do not breathe mist, vapours, spray. P280 - Wear protective gloves, eye protection.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water .

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

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contact lenses, if present and easy to do. Continue rinsing.

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50  $^{\circ}\text{C}/122$ 

°F.

Extra phrases

: Without adequate ventilation formation of explosive mixtures may be possible.

#### 2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Name	Product identifier	%	Classification according to Regulation
· · · · · · · · · · · · · · · · · · ·	Troduct Identilion	70	(EC) no 1272/2008 (CLP)
(2-methoxymethylethoxy)propanol (substance with a Community workplace exposure limit)	CAS number: 34590-94-8 EINECS / ELINCS number: 252-104-2 REACH-no: 01-2119450011- 60	10 – 25	Not classified
3-butoxypropan-2-ol	CAS number: 5131-66-8 EINECS / ELINCS number: 225-878-4 EC Index-No.: 603-052-00-8 REACH-no: 01-2119475527- 28	2,5 – 10	Eye Irrit. 2, H319 Skin Irrit. 2, H315
Butane (Contains < 0,1% butadiene (203-450-8))	CAS number: 106-97-8 EINECS / ELINCS number: 203-448-7 REACH-no: 01-2119474691- 32	2,5 – 10	Flam. Gas 1A, H220 Press. Gas
Propane	CAS number: 74-98-6 EINECS / ELINCS number: 200-827-9 REACH-no: 01-2119486944- 21	2,5 – 10	Flam. Gas 1A, H220 Press. Gas (Comp.), H280
2-Aminoethanol	CAS number: 141-43-5 EINECS / ELINCS number: 205-483-3 REACH-no: 01-2119486455- 28	2,5 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314 STOT SE 3, H335 Aquatic Chronic 3, H412
C6 Alkyl glucoside	CAS number: 54549-24-5 EINECS / ELINCS number: 259-217-6 REACH-no: 01-2119492545- 29	1 – 2,5	Eye Dam. 1, H318
Alcohol ethoxylate	CAS number: 68439-45-2	1 – 2,5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Tetrapotassium pyrophosphate	CAS number: 7320-34-5 EINECS / ELINCS number: 230-785-7 REACH-no: 01-2119489369- 18	1 – 2,5	Eye Irrit. 2, H319
Isobutane (Contains < 0,1% butadiene (203-450-8))	CAS number: 75-28-5 EINECS / ELINCS number: 200-857-2 REACH-no: 01-2119485395- 27	0,1 – 1	Flam. Gas 1A, H220 Press. Gas (Comp.), H280

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Specific concentration limits:			
Name	Product identifier	Specific concentration limits (%)	
2-Aminoethanol	CAS number: 141-43-5 EINECS / ELINCS number: 205-483-3 REACH-no: 01-2119486455- 28	(5 ≤ C ≤ 100) STOT SE 3; H335	

Full text of H- and EUH-statements: see section 16

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

General advice : Get medical advice/attention if you feel unwell.

Inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable

for breathing.

Skin contact : Take off contaminated clothing. Gently wash with plenty of soap and water. Immediately

rinse with plenty of water.

Eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

Ingestion : Do NOT induce vomiting. Get immediate medical advice/attention. Drink plenty of water.

Go into open air and ventilate suspected area.

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

Skin contact : Causes severe skin burns and eye damage.

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

No additional information available

## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Carbon dioxide. Alcohol resistant foam.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol.

## 5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment. Use water spray or fog for

cooling exposed containers.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

#### **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Wear suitable protective clothing.

For non-emergency personnel

Protective equipment : Refer to protective measures listed in Sections 7 and 8.

Emergency procedures : Evacuate unnecessary personnel.

For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

This product and its container must be disposed of in a safe way, and as per local

legislation. Do not flush with aqueous cleansing agents.

Other information : Provide adequate ventilation.

#### 6.4. Reference to other sections

Stable in use and storage conditions as recommended in item 7. Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

#### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Do not spray on a naked flame or any incandescent material. Do not pierce or burn, even after use. In use, may form flammable vapour-air mixture.

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Precautions for safe handling : Do not eat, drink or smoke when using this product. Use personal protective equipment as

required. Provide good ventilation in process area to prevent formation of vapour. Take precautionary measures against static discharge. Eliminate all ignition sources if safe to do

SO.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work.

## 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Protect from sunlight. Store in a well-ventilated place. Store in a dry place. Keep away from

ignition sources. Do not expose to temperatures exceeding 50 °C. Keep in fireproof place.

Smoking is forbidden.

Incompatible products : Keep away from food, drink and animal feedingstuffs.

Technical condition(s) : Store in a well-ventilated place. The floor of the depot should be impermeable and

designed to form a water-tight basin.

Special rules on packaging : Keep container tightly closed and dry. Keep only in original container.

## 7.3. Specific end use(s)

No additional information available

#### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### National occupational exposure and biological limit values

(2-methoxymethylethoxy)propanol (34590-94-8)

EV - Indicative Occupational Exposure Limit (IOEL)           Local name         (2-Methoxymethylethoxy)-propanol           10E- LYMA         308 mg/m³           6 published by Sisk         50 pollmon           Remark         Sisk           Regulatory reference         0 MMISSION DIRECTIVE 2000/39/EC           United Kingdom - Occupational Exposure Limits           E Collamane         (2-methoxymethylethoxy) propanol           Remark         308 mg/m³           50 pm         50 pm           Remark         8 K (Can be absorbed through the skin. The assigned substances are those for which the skin assigned substances are th	(2-methoxymethoxy)proparior (3+390-94-0)		
IOEL TWA         308 mg/m³           Remark         Skin           Regulatory reference         COMMISSION DIRECTIVE 2000/39/EC           United Kingdom - Occupational Exposure Limits           Local name         (2-methoxymethylethoxy) propanol           WEL TWA (OEL TWA)         308 mg/m³           50 ppm           Remark         \$k (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)           Regulatory reference         EH40/2005 (Fourth edition, 2020). HSE           Butane (106-97-8)         **** United Kingdom - Occupational Exposure Limits           Local name         Butane           WEL TWA (OEL TWA)         1450 mg/m³           600 ppm           WEL STEL (OEL STEL)         1810 mg/m³           750 ppm           Remark         Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)           Regulatory reference         EH40/2005 (Fourth edition, 2020). HSE           2-Aminoethanol (141-43-5)         ***           EU - Indicative Occupational Exposure Limit (IOEL)           Local name         2-Aminoethanol           IOEL TWA         2,5 mg/m³           1 ppm	EU - Indicative Occupational Exposure Limit (IOEL)		
Remark         Skin           Regulatory reference         COMMISSION DIRECTIVE 2000/39/EC           United Kingdom - Occupational Exposure Limits           Local name         (2-methoxymethylethoxy) propanol           WEL TWA (OEL TWA)         308 mg/m³           50 ppm         Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)           Regulatory reference         EH40/2005 (Fourth edition, 2020). HSE           Butane (106-97-8)           United Kingdom - Occupational Exposure Limits           Local name         Butane           WEL TWA (OEL TWA)         450 mg/m³           600 ppm           WEL STEL (OEL STEL)         1810 mg/m³           Remark         Care (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)           Regulatory reference         EH40/2005 (Fourth edition, 2020). HSE           2-Aminoethanol (141-43-5)           EU - Indicative Occupational Exposure Limit (IOEL)           Local name         2-Aminoethanol           IOEL TWA         2-S mg/m³           1 ppm	Local name	(2-Methoxymethylethoxy)-propanol	
Remark         Skin           Regulatory reference         COMMISSION DIRECTIVE 2000/39/EC           United Kingdom - Occupational Exposure Limits           Local name         (2-methoxymethylethoxy) propanol           WEL TWA (OEL TWA)         308 mg/m³           50 ppm           Remark         Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)           Regulatory reference         EH40/2005 (Fourth edition, 2020). HSE           Butane (106-97-8)           United Kingdom - Occupational Exposure Limits           Local name         Butane           WEL TWA (OEL TWA)         4450 mg/m³           600 ppm         600 ppm           WEL STEL (OEL STEL)         1810 mg/m³           Remark         Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)           Regulatory reference         EH40/2005 (Fourth edition, 2020). HSE           2-Aminoethanol (141-43-5)           EU - Indicative Occupational Exposure Limit (IOEL)           Local name         2-Aminoethanol           IOEL TWA         2-Aminoethanol           IOEL TWA         2-S mg/m³           In pm	IOEL TWA	308 mg/m³	
Regulatory reference COMMISSION DIRECTIVE 2000/39/EC  United Kingdom - Occupational Exposure Limits  Local name (2-methoxymethylethoxy) propanol  WEL TWA (OEL TWA) 308 mg/m³ 50 ppm  Remark Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)  Regulatory reference EH40/2005 (Fourth edition, 2020). HSE  Butane (106-97-8)  United Kingdom - Occupational Exposure Limits  Local name Butane  WEL TWA (OEL TWA) 41450 mg/m³ 600 ppm  WEL STEL (OEL STEL) 1810 mg/m³ 750 ppm  Remark Care (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)  Regulatory reference EH40/2005 (Fourth edition, 2020). HSE  2-Aminoethanol (141-43-5)  EU - Indicative Occupational Exposure Limit (IOEL)  Local name 2-Aminoethanol  OLE TWA (OEL TWA) 5 mg/m³ 1 ppm		50 ppm	
United Kingdom - Occupational Exposure Limits       Local name     (2-methoxymethylethoxy) propanol       WEL TWA (OEL TWA)     308 mg/m³       50 ppm       Remark     Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)       Regulatory reference     EH40/2005 (Fourth edition, 2020). HSE       Butane (106-97-8)     Butane       United Kingdom - Occupational Exposure Limits       Local name     Butane       WEL TWA (OEL TWA)     1450 mg/m³       600 ppm       WEL STEL (OEL STEL)     1810 mg/m³       750 ppm       Remark     Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)       Regulatory reference     EH40/2005 (Fourth edition, 2020). HSE       2-Aminoethanol (141-43-5)       EU - Indicative Occupational Exposure Limit (IOEL)       Local name     2-Aminoethanol       IOEL TWA     2.5 mg/m³       1 ppm	Remark	Skin	
Local name     (2-methoxymethylethoxy) propanol       WEL TWA (OEL TWA)     308 mg/m³       50 ppm       Remark     Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)       Regulatory reference     EH40/2005 (Fourth edition, 2020). HSE       Butane (106-97-8)     United Kingdom - Occupational Exposure Limits       Local name     Butane       WEL TWA (OEL TWA)     1450 mg/m³       600 ppm       WEL STEL (OEL STEL)     1810 mg/m³       750 ppm       Remark     Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)       Regulatory reference     EH40/2005 (Fourth edition, 2020). HSE       2-Aminoethanol (141-43-5)     EU - Indicative Occupational Exposure Limit (IOEL)       Local name     2-Aminoethanol       IOEL TWA     2,5 mg/m³       1 ppm	Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC	
WEL TWA (OEL TWA)  308 mg/m³ 50 ppm  Remark  Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)  Regulatory reference  EH40/2005 (Fourth edition, 2020). HSE  Butane (106-97-8)  United Kingdom - Occupational Exposure Limits  Local name  Butane  WEL TWA (OEL TWA)  1450 mg/m³ 600 ppm  WEL STEL (OEL STEL)  1810 mg/m³ 750 ppm  Remark  Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)  Regulatory reference  EH40/2005 (Fourth edition, 2020). HSE  EU - Indicative Occupational Exposure Limit (IOEL)  Local name  2-Aminoethanol  10EL TWA  1ppm	United Kingdom - Occupational Exposure Limits		
S0 ppm   Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)   Regulatory reference   EH40/2005 (Fourth edition, 2020). HSE	Local name	(2-methoxymethylethoxy) propanol	
Remark Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)  Regulatory reference EH40/2005 (Fourth edition, 2020). HSE  Butane (106-97-8)  United Kingdom - Occupational Exposure Limits  Local name Butane  WEL TWA (OEL TWA) 450 mg/m³ 600 ppm  WEL STEL (OEL STEL) 1810 mg/m³ 750 ppm  Remark Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)  Regulatory reference EH40/2005 (Fourth edition, 2020). HSE  2-Aminoethanol (141-43-5)  EU - Indicative Occupational Exposure Limit (IOEL)  Local name 2-Aminoethanol  IOEL TWA 5 ing/m³ 1 ppm	WEL TWA (OEL TWA)	308 mg/m³	
are concerns that dermal absorption will lead to systemic toxicity)         Regulatory reference       EH40/2005 (Fourth edition, 2020). HSE         Butane (106-97-8)         United Kingdom - Occupational Exposure Limits         Local name       Butane         WEL TWA (OEL TWA)       1450 mg/m³         600 ppm         WEL STEL (OEL STEL)       1810 mg/m³         750 ppm         Remark       Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)         Regulatory reference       EH40/2005 (Fourth edition, 2020). HSE         2-Aminoethanol (141-43-5)         EU - Indicative Occupational Exposure Limit (IOEL)         Local name       2-Aminoethanol         IOEL TWA       2,5 mg/m³         1 ppm		50 ppm	
Butane (106-97-8)  United Kingdom - Occupational Exposure Limits  Local name  Butane  WEL TWA (OEL TWA)  4450 mg/m³  600 ppm  WEL STEL (OEL STEL)  1810 mg/m³  750 ppm  Remark  Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)  Regulatory reference  EH40/2005 (Fourth edition, 2020). HSE  EU - Indicative Occupational Exposure Limit (IOEL)  Local name  2-Aminoethanol  10EL TWA  2,5 mg/m³  1 ppm	Remark		
United Kingdom - Occupational Exposure Limits       Local name     Butane       WEL TWA (OEL TWA)     450 mg/m³       600 ppm       WEL STEL (OEL STEL)     1810 mg/m³       750 ppm       Remark     Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)       Regulatory reference     EH40/2005 (Fourth edition, 2020). HSE       2-Aminoethanol (141-43-5)       EU - Indicative Occupational Exposure Limit (IOEL)       Local name     2-Aminoethanol       IOEL TWA     2,5 mg/m³       1 ppm	Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	
Local name  WEL TWA (OEL TWA)  4450 mg/m³ 600 ppm  WEL STEL (OEL STEL)  1810 mg/m³ 750 ppm  Remark  Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)  Regulatory reference  EH40/2005 (Fourth edition, 2020). HSE  2-Aminoethanol (141-43-5)  EU - Indicative Occupational Exposure Limit (IOEL)  Local name  2-Aminoethanol  IOEL TWA  2,5 mg/m³ 1 ppm	Butane (106-97-8)		
WEL TWA (OEL TWA)  1450 mg/m³ 600 ppm  WEL STEL (OEL STEL) 1810 mg/m³ 750 ppm  Remark Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)  Regulatory reference EH40/2005 (Fourth edition, 2020). HSE  2-Aminoethanol (141-43-5)  EU - Indicative Occupational Exposure Limit (IOEL)  Local name 2-Aminoethanol IOEL TWA 2,5 mg/m³ 1 ppm	United Kingdom - Occupational Exposure Limits		
WEL STEL (OEL STEL)  ### 1810 mg/m³  ### 750 ppm  Remark  Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)  ### 1840/2005 (Fourth edition, 2020). HSE  ### 184	Local name	Butane	
WEL STEL (OEL STEL)  1810 mg/m³ 750 ppm  Remark  Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)  Regulatory reference  EH40/2005 (Fourth edition, 2020). HSE  EU - Indicative Occupational Exposure Limit (IOEL)  Local name  2-Aminoethanol  IOEL TWA  2,5 mg/m³  1 ppm	WEL TWA (OEL TWA) 1450 mg/m³		
T50 ppm   T50		600 ppm	
Remark Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)  Regulatory reference EH40/2005 (Fourth edition, 2020). HSE  2-Aminoethanol (141-43-5)  EU - Indicative Occupational Exposure Limit (IOEL)  Local name 2-Aminoethanol  IOEL TWA 2,5 mg/m³ 1 ppm	WEL STEL (OEL STEL)	1810 mg/m³	
contains more than 0.1% of buta-1,3-diene)  Regulatory reference EH40/2005 (Fourth edition, 2020). HSE  2-Aminoethanol (141-43-5)  EU - Indicative Occupational Exposure Limit (IOEL)  Local name 2-Aminoethanol  IOEL TWA 2,5 mg/m³ 1 ppm		750 ppm	
2-Aminoethanol (141-43-5)  EU - Indicative Occupational Exposure Limit (IOEL)  Local name 2-Aminoethanol  IOEL TWA 2,5 mg/m³ 1 ppm	Remark	Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene)	
EU - Indicative Occupational Exposure Limit (IOEL)  Local name 2-Aminoethanol  IOEL TWA 2,5 mg/m³ 1 ppm	Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	
Local name         2-Aminoethanol           IOEL TWA         2,5 mg/m³           1 ppm	2-Aminoethanol (141-43-5)		
IOEL TWA 2,5 mg/m³ 1 ppm	EU - Indicative Occupational Exposure Limit (IOEL)		
1 ppm	Local name	2-Aminoethanol	
	IOEL TWA	2,5 mg/m³	
IOEL STEL 7,6 mg/m³		1 ppm	
	IOEL STEL	7,6 mg/m³	

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2-Aminoethanol (141-43-5)		
	3 ppm	
Remark	Skin	
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC	
United Kingdom - Occupational Exposure Limits		
Local name	2-Aminoethanol	
WEL TWA (OEL TWA)	2,5 mg/m³	
	1 ppm	
WEL STEL (OEL STEL)	7,6 mg/m³	
	3 ppm	
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

#### **DNEL and PNEC**

NEL and PNEC			
(2-methoxymethylethoxy)propanol (34590-94-8)			
DNEL/DMEL (Workers)			
Long-term - systemic effects, dermal	283 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	308 mg/m³		
DNEL/DMEL (General population)			
Long-term - systemic effects,oral	36 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	37,2 mg/m³		
Long-term - systemic effects, dermal	121 mg/kg bodyweight/day		
PNEC (Water)			
PNEC aqua (freshwater)	19 mg/l		
PNEC aqua (marine water)	1,9 mg/l		
PNEC aqua (intermittent, freshwater)	190 mg/l		
PNEC (Sediment)			
PNEC sediment (freshwater)	70,2 mg/kg dwt		
PNEC sediment (marine water)	7,02 mg/kg dwt		
PNEC (Soil)			
PNEC soil	2,74 mg/kg dwt		
PNEC (STP)			
PNEC sewage treatment plant	4168 mg/l		
C6 Alkyl glucoside (54549-24-5)			
DNEL/DMEL (Workers)			
Long-term - systemic effects, dermal	595000 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	420 mg/m³		
DNEL/DMEL (General population)			
Long-term - systemic effects,oral	35,7 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	124 mg/m³		
Long-term - systemic effects, dermal	357000 mg/kg bodyweight/day		
Tetrapotassium pyrophosphate (7320-34-5)			
DNEL/DMEL (Workers)			
Long-term - systemic effects, inhalation	17,63 mg/m³		
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Tetrapotassium pyrophosphate (7320-34-5)	
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation 4,35 mg/m³	
0.0	

#### 8.2. Exposure controls

#### Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Personal protection equipment

#### Personal protective equipment:

In case of inadequate ventilation wear respiratory protection. Gloves. Safety glasses.

#### Personal protective equipment symbol(s):









#### Eye and face protection

#### Eye protection:

Wear security glasses which protect from splashes. ISO 16321-1

#### Skin protection

#### Skin protection:

EN 13034. Wear suitable protective clothing

#### Hand protection:

Where hand contact with the product may occur, the use of gloves (approved according to the EN374 standard) made from the following materials may provide suitable chemical protection: Nitrile rubber. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available. In this case a lower breakthrough time may be acceptable as long as appropriate glove maintenance and replacement regimes are rigorously followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Depending on model and material, glove thickness generally should be greater than 0,35 mm. Suitability and durability of a glove is dependent on usage (= frequency and duration of contact), chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly.

#### Respiratory protection

#### Respiratory protection:

Wear appropriate breathing apparatus if air renewal not sufficient to maintain dust/vapour under TLV. ABEK- Hg/P3

#### **SECTION 9: Physical and chemical properties**

## **9.1. Information on basic physical and chemical properties**Physical state : Liquid

Colour : light yellow.

Appearance : Aerosol.

Odour : Not available

Odour threshold : Not available

Melting point/melting range : Not available

Freezing point : Not available

Boiling point/range : Not applicable, since the product is an aerosol.

Flammability : Not available
Lower explosion limit : Not available
Upper explosion limit : Not available

Flash point : Not applicable, since the product is an aerosol.

Auto-ignition temperature : Not self-igniting

Decomposition temperature : Not available
pH : 11,7 (20°C)

Viscosity, kinematic : Not available

Solubility : Water: completely miscible

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Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : 23 hPa (20°C) Vapour pressure at 20 °C : Not available Density : Not available Relative density (water = 1) : 0,955 (20 °C) Vapour density : Not available Particle characteristics : Not applicable

#### 9.2. Other information

Information with regard to physical hazard classes

Explosion limits : 1,1 – 14 vol %

Other safety characteristics

V.O.C. (V.O.S.) : 238,7 g/l

#### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Extremely flammable aerosol.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No additional information available

#### 10.4. Conditions to avoid

No additional information available

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

No additional information available

#### SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

,		
(2-methoxymethylethoxy)propanol (34590-94-8	)	
LD50/oral/rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)	
LD50 dermal rat	> 19020 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
LD50/dermal/rabbit	9510 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
3-butoxypropan-2-ol (5131-66-8)		
LD50/oral/rat	2124 – 2700 mg/kg	
LD50 dermal rat	> 2000 mg/kg	
Butane (106-97-8)		
LC50/inhalation/4h/rat	658000 mg/m³	
Alcohol ethoxylate (68439-45-2)		
LD50/oral/rat	300 – 2000 mg/kg	
LD50 dermal rat	> 2000 mg/kg	
Tetrapotassium pyrophosphate (7320-34-5)		
LD50/oral/rat	300 – 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure), Remarks on results: other:	
LD50/dermal/rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	

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1.050". 1. 1. 1. 1. 1. 1.	
LC50/inhalation/4h/rat	> 1,1 mg/l air Animal: rat, Guideline: other:, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: other:, Guideline: other:, Guideline: other:
2-Aminoethanol (141-43-5)	
LD50/oral/rat	1089 mg/kg
LD50/dermal/rabbit	2504 mg/kg
LC50/inhalation/4h/rat	11 mg/l
Skin corrosion/irritation	: Causes severe skin burns.
	pH: 11,7 (20°C)
2-Aminoethanol (141-43-5)	
рН	≈ 12
Serious eye damage/irritation	: Causes serious eye damage.
	pH: 11,7 (20°C)
2-Aminoethanol (141-43-5)	
рН	≈ 12
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
2-Aminoethanol (141-43-5)	
STOT-single exposure	May cause respiratory irritation.
GTOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
(2-methoxymethylethoxy)propanol (34	590-94-8)
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: other:
Tetrapotassium pyrophosphate (7320-	34-5)
NOAEL (oral, rat, 90 days)	500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

No additional information available

## SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term

(acute)

: Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term

: Not classified (Based on available data, the classification criteria are not met)

(chronic)

(2-methoxymethylethoxy)propanol (34590-94-8		
LC50/96h/fish	> 1000 mg/l Test organisms (species): Poecilia reticulata	
EC50 - Other aquatic organisms [1]	1930 mg/l Test organisms (species): other aquatic crustacea:	
EC50 72h - Algae [1]	> 969 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)	
EC50 96h - Algae [1]	> 969 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)	
LOEC (chronic)	0,5 mg/l Test organisms (species): Daphnia magna Duration: '22 d'	
NOEC (chronic)	≥ 0,5 mg/l Test organisms (species): Daphnia magna Duration: '22 d'	
3-butoxypropan-2-ol (5131-66-8)		
LC50/96h/fish	560 – 1000 mg/l	

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3-butoxypropan-2-ol (5131-66-8)		
LC50 - Other aquatic organisms [1]	> 1000 μg/l (Daphnia magna)	
C6 Alkyl glucoside (54549-24-5)	2 1000 pg/1 (Daprilla magna)	
LC50/96h/fish	> 100 mg/l (Oncorhynchus mykiss)	
EC50 - Other aquatic organisms [1]	0,1 mg/l (Daphnia Magna)	
EC50 - Other aquatic organisms [2]	> 100 mg/l (72h)	
	- 100 High (72H)	
Alcohol ethoxylate (68439-45-2)		
LC50 - Fish [2]	10 – 100 mg/l	
LC50 - Other aquatic organisms [1]	10 – 100 mg/l (Algae)	
LC50 - Other aquatic organisms [2]	> 100 mg/l Bacteria	
Tetrapotassium pyrophosphate (7320-34-5)		
LC50/96h/fish	> 100 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)	
LC50 - Fish [2]	> 750 mg/l (48h, Leuciscus idus)	
LC50 - Other aquatic organisms [2]	> 750 mg/l (Fish (Golden Orfe))	
EC50/24h/daphnia magna	> 100 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	
2-Aminoethanol (141-43-5)		
LC50/96h/fish	349 mg/l	
EC50/48h/daphnia magna	65 mg/l	
EC50 72h - Algae [1]	2,1 – 2,8 mg/l	
NOEC (chronic)	850 mg/l	
NOEC chronic fish	1,24 mg/l Oryzias latipes	
NOEC chronic algae	1 mg/l	
12.2. Persistence and degradability		
Decarbonizer Foam		
Persistence and degradability	Rapidly degradable	
(2-methoxymethylethoxy)propanol (34590-94-8)		
Persistence and degradability	Rapidly degradable	
3-butoxypropan-2-ol (5131-66-8)		
Persistence and degradability	Rapidly degradable	
Butane (106-97-8)		
Persistence and degradability	Not established.	
Propane (74-98-6)		
Persistence and degradability	Not established.	
C6 Alkyl glucoside (54549-24-5)		
Persistence and degradability	Rapidly degradable	
Alcohol ethoxylate (68439-45-2)		
Persistence and degradability	Rapidly degradable	
Tetrapotassium pyrophosphate (7320-34-5)		
Persistence and degradability	Not established.	

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Isobutane (Contains < 0,1% butadiene (203-450-8)) (75-28-5)		
Persistence and degradability	Not established.	
2-Aminoethanol (141-43-5)		
Persistence and degradability Rapidly degradable		
12.3. Bioaccumulative potential		
2-Aminoethanol (141-43-5)		
Partition coefficient n-octanol/water (Log Pow) -2,31,31		
1 artition coefficient in-octation/water (Log Flow) -2,3 = -1,5 i		

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Endocrine disrupting properties

No additional information available

#### 12.7. Other adverse effects

Decarbonizer Foam

General information(s) Do not discharge into drains or rivers, Avoid release to the environment.

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.

European List of Waste (LoW, EC 2000/532) : 15 01 04 - metallic packaging

07 06 04\* - other organic solvents, washing liquids and mother liquors

#### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

## 14.1. UN number or ID number

 UN-No. (ADR)
 : UN 1950

 UN-No. (IMDG)
 : UN 1950

 UN-No. (IATA)
 : UN 1950

## 14.2. UN proper shipping name

Proper Shipping Name (ADR) : AEROSOLS, flammable

Proper Shipping Name (IMDG) : AEROSOLS

Proper Shipping Name (IATA) : Aerosols, flammable

Transport document description (ADR) (ADR) : UN 1950 AEROSOLS, flammable, 2.1, (D)

Transport document description (IMDG) : UN 1950 AEROSOLS, 2.1

Transport document description (IATA) : UN 1950 Aerosols, flammable, 2.1

#### 14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 2.1
Danger labels (ADR) : 2.1

: 2.1 :



#### **IMDG**

Transport hazard class(es) (IMDG) : 2.1
Danger labels (IMDG) : 2.1

2.1

## IATA

Transport hazard class(es) (IATA) : 2.1

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Danger labels (IATA) : 2.1



#### 14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

#### 14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
EmS-No. (Fire) : F-D
EmS-No. (Spillage) : S-U

Further information : No supplementary information available

#### 14.6. Special precautions for user

#### Overland transport

Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E0
Tunnel restriction code : D

#### Transport by sea

No data available

#### Air transport

No data available

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### **EU Regulations**

Ingredients according to the Regulation (EC) : 5-15% aliphatic hydrocarbons, < 5% non-ionic surfactants, < 5% phosphates

648/2004 on detergents

#### **REACH Annex XVII (Restriction List)**

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

#### **REACH Annex XIV (Authorisation List)**

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

#### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

#### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

#### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

### Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

#### Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

#### VOC Directive (2004/42)

V.O.C. (V.O.S.) : 238,7 g/l

#### Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

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## **Drug Precursors Regulation (EC 273/2004)**

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

## 15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information			
Indication of changes			
Section	Changed item	Comments	
	Last revision	Modified	
	Supersedes	Modified	
8.2	Respiratory protection	Modified	
9.1	Appearance		
9.2.2.			

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1A	Flammable gases, Category 1A
Press. Gas	Gases under pressure
Press. Gas (Comp.)	Gases under pressure : Compressed gas
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
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.
H412	Harmful to aquatic life with long lasting effects.

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#### Disclaimer with regard to REACH:

The information provided in this Safety Data Sheet is consistent with the information in the Chemical Safety Report, as far as this information was available at the time of compilation (see last revision date).

#### Disclaimer:

The information of this Safety Data Sheet is based on the present state of our knowledge and on current EC and national laws, as the users' working conditions are beyond our knowledge and control. The user is always responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this Safety Data Sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information provided relates only to the specific product designated and may not be valid for such product used in combination with any other product. The product must not be used for any purposes other than those specified without first obtaining written handling instructions.