

### 1.1. Product identifier

Product form	: Mixture
Product name	: Eco-burner Fuel
Type of product	: Aerosol

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

### 1.2.1. Relevant identified uses

Main use category	: Professional use
Use of the substance/mixture	: For use ONLY in re-fill of Eco-burner Chafo, as directed by Eco-burner Ltd. Directions for use provided in "Eco-burner Quick Start Guide." Use only with approved Eco-burner Chafo Devices.
Use of the substance/mixture	: Fuel

**1.2.2. Uses advised against**

Any use not specifically described by Eco-burner Ltd.

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

Eco-burner  
Unit 5 Airside, Gulf Stream Avenue  
Waterford  
T +353 (0)51 353806 - F +353 (0)51 364067  
[info@Eco-burner.com](mailto:info@Eco-burner.com) - [www.Eco-burner.com](http://www.Eco-burner.com)

#### 1.4. Emergency telephone number

Emergency number : +44 1865 407 333 (Carechem)

## 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

Full text of H-phrases: see section 16

**Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]**

F<sub>+</sub>: R12

Full text of R-phrases: see section 16

## 2.2. Label elements

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS02

Signal word (CLP)	: Danger
Hazard statements (CLP)	: H222 - Extremely flammable aerosol H229 - Pressurised container: May burst if heated
Precautionary statements (CLP)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P251 - Do not pierce or burn, even after use P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
n-Butane	(CAS No) 106-97-8 (EC no) 203-448-7 (EC index no) 601-004-00-0	70 – 90	F+; R12	Flam. Gas 1, H220
Propane	(CAS No) 74-98-6 (EC no) 200-827-9 (EC index no) 601-003-00-5	10 – 30	F+; R12	Flam. Gas 1, H220
Isobutane	(CAS No) 75-28-5 (EC no) 200-857-2 (EC index no) 601-004-00-0	1 – 5	F+; R12	Flam. Gas 1, H220 Press. Gas

Full text of R- and H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Artificial respiration and/or oxygen if necessary. Call a POISON CENTER or doctor/physician.
First-aid measures after skin contact	: Thaw frosted parts with lukewarm water. Do not rub affected area. Get medical advice/attention.
First-aid measures after eye contact	: Direct contact with the eyes is likely to be irritating.
First-aid measures after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

Symptoms/injuries after inhalation	: In high concentrations : Anesthetic effects. Shortness of breath. Inhalation of vapours may cause respiratory irritation. Headache. Dizziness. Nausea.
Symptoms/injuries after skin contact	: May cause moderate irritation. Rapid evaporation of the liquid may cause frostbite.
Symptoms/injuries after eye contact	: This gas is non-irritating; but direct contact with liquefied/pressurized gas or frost particles may produce severe and possibly permanent eye damage from freeze burns.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Dry chemical. Foam. Water spray. Water fog.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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

Fire hazard	: Extremely flammable aerosol.
Explosion hazard	: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Hazardous decomposition products in case of fire	: Carbon monoxide. Nitrogen oxides. Sulphur oxides.

### 5.3. Advice for firefighters

Precautionary measures fire	: Stop leak if safe to do so.
Firefighting instructions	: DO NOT fight fire when fire reaches explosives. Evacuate area.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus. EN469.

## SECTION 6: Accidental release measures

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

General measures	: No open flames. No smoking. Isolate from fire, if possible, without unnecessary risk. Remove ignition sources. Use special care to avoid static electric charges.
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#### 6.1.1. For non-emergency personnel

Protective equipment	: Do not breathe aerosol. Refer to section 8.2.
Emergency procedures	: Stop leak, if possible without risk. Keep upwind. Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment	: Do not breathe aerosol. Refer to section 8.2.
Emergency procedures	: Stop leak if safe to do so. Eliminate every possible source of ignition. Evacuate unnecessary personnel. Keep upwind.

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

### 6.2. Environmental precautions

Notify authorities if product enters sewers or public waters. Do not discharge into drains or the environment.

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

For containment : Eliminate all ignition sources.

Methods for cleaning up : Notify environmental authorities.

### 6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Pressurized container: Do not pierce or burn, even after use.

Precautions for safe handling : Do not spray on an open flame or other ignition source.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product.

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

Technical measures : Avoid static electricity discharges. No flames, no sparks. Eliminate all sources of ignition.

Storage conditions : Do not expose to temperatures exceeding 50 °C/ 122 °F. Keep in fireproof place.

Incompatible materials : Heat sources. Direct sunlight.

Storage area : Store in dry, cool, well-ventilated area.

### 7.3. Specific end use(s)

Fuel.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

n-Butane (106-97-8)		
Denmark	Grænseværdie (kortvarig) (mg/m³)	2400 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	1000 ppm
Slovakia	NPHV (priemerná) (mg/m³)	2400 mg/m³
Slovakia	NPHV (priemerná) (ppm)	1000 ppm
Slovakia	Upozornenie (SK)	(Dokázaný karcinogén pre ľudí, Pravdepodobný mutagén)
Spain	VLA-ED (mg/m³)	1935 mg/m³
Spain	VLA-ED (ppm)	800 ppm
Australia	STEL (mg/m³)	1810 mg/m³
Australia	STEL (ppm)	750 ppm
USA - ACGIH	ACGIH TWA (ppm)	1000 ppm
USA - ACGIH	ACGIH STEL (ppm)	1000 ppm
Isobutane (75-28-5)		
Austria	MAK (mg/m³)	1900 mg/m³
Austria	MAK (ppm)	800 ppm
Austria	MAK Short time value (mg/m³)	3800 mg/m³ max. 3x60 min./Schicht
Austria	MAK Short time value (ppm)	1600 ppm max. 3x60 min./Schicht
Belgium	Limit value (ppm)	1000 ppm
Finland	HTP-arvo (8h) (mg/m³)	1900 mg/m³
Finland	HTP-arvo (8h) (ppm)	800 ppm
Finland	HTP-arvo (15 min)	2400 mg/m³
Finland	HTP-arvo (15 min) (ppm)	1000 ppm
France	VME (mg/m³)	1900 mg/m³
France	VME (ppm)	800 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	2400 mg/m³
Germany	TRGS 900 Occupational exposure limit value (ppm)	1000 ppm
Slovakia	NPHV (priemerná) (mg/m³)	2400 mg/m³
Slovakia	NPHV (priemerná) (ppm)	1000 ppm
Slovakia	Upozornenie (SK)	(Dokázaný karcinogén pre ľudí, Pravdepodobný mutagén)

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

Isobutane (75-28-5)		
Switzerland	VME (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Switzerland	VME (ppm)	800 ppm
USA - ACGIH	ACGIH TWA (ppm)	1000 ppm
USA - ACGIH	ACGIH STEL (ppm)	1000 ppm
Propane (74-98-6)		
Denmark	Grænseværdie (kortvarig) (mg/m <sup>3</sup> )	3600 mg/m <sup>3</sup>
Denmark	Grænseværdie (kortvarig) (ppm)	2000 ppm

### 8.2. Exposure controls

Appropriate engineering controls	: Provide local exhaust or general room ventilation.
Personal protective equipment	: Avoid all unnecessary exposure. Accidental release of the contents: avoid leaks.
Hand protection	: None under normal use. It is a good industrial hygiene practice to minimize skin contact. In case of repeated or prolonged contact wear gloves. EN374
Eye protection	: None under normal use. In case of aerosol production: protective goggles. EN166
Respiratory protection	: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. In case of inadequate ventilation wear respiratory protection. Use self-contained breathing apparatus. EN 12083

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Aerosol.
Colour	: Colourless.
Odour	: Sweet. petroleum.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: > 1
Melting point	: No data available
Freezing point	: No data available
Boiling point	: -42.2 - -0.5 °C (-1.1 - 31.1 °F)
Flash point	: -104.4 °C (-156 °F (estimated))
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Extremely flammable aerosol
Vapour pressure	: 40 PSIG @ 70 °F
Relative vapour density at 20 °C	: 1.886
Relative density	: 0.567
Solubility	: Water: 0.008 % @ 70 °F
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 1.9 vol % Gas in air 9.5 vol % Gas in air

### 9.2. Other information

VOC content	: 100 %
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known.

### 10.2. Chemical stability

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Heat. Sparks. Open flame. Direct sunlight. Overheating.

### 10.5. Incompatible materials

Strong oxidizers. Alkali. Strong mineral acids.

### 10.6. Hazardous decomposition products

Carbon monoxide. Mixture of hydrocarbons.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: Container under pressure. Do not drill or burn even after use. Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Flammable vapours may accumulate in the container.
European List of Waste (LoW) code	: For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. 16 05 05 - gases in pressure containers other than those mentioned in 16 05 04
H code	: H3-A - 'Highly flammable': — liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or — substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or — solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or — gaseous substances and preparations which are flammable in air at normal pressure, or — substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.





## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

<b>14.1. UN number</b>	
UN-No. (ADR)	: 1950
UN-No. (IMDG)	: 1950
UN-No.(IATA)	: 1950
UN-No.(ADN)	: 1950
UN-No. (RID)	: Not applicable
<b>14.2. UN proper shipping name</b>	
Proper Shipping Name (ADR)	: AEROSOLS
Proper Shipping Name (IMDG)	: AEROSOLS
Proper Shipping Name (IATA)	: Aerosols, flammable
Proper Shipping Name (ADN)	: AEROSOLS
Proper Shipping Name (RID)	: Not applicable
Transport document description (ADR)	: UN 1950 AEROSOLS, 2.1, (D)
Transport document description (IMDG)	: UN 1950 AEROSOLS, 2.1
<b>14.3. Transport hazard class(es)</b>	
<b>ADR</b>	
Transport hazard class(es) (ADR)	: 2.1
Danger labels (ADR)	: 2.1
	: 
<b>IMDG</b>	
Transport hazard class(es) (IMDG)	: 2.1
Danger labels (IMDG)	: 2.1
	: 
<b>IATA</b>	
Transport hazard class(es) (IATA)	: 2.1
Hazard labels (IATA)	: 2.1
	: 
<b>ADN</b>	
Transport hazard class(es) (ADN)	: 2.1
Danger labels (ADN)	: 2.1
	: 
<b>RID</b>	
Transport hazard class(es) (RID)	: Not applicable
<b>14.4. Packing group</b>	
Packing group (ADR)	: Not applicable

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR)	: 5F
Special provisions (ADR)	: 190, 327, 344, 625
Limited quantities (ADR)	: 1I
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P207, LP02
Special packing provisions (ADR)	: PP87, RR6, L2
Mixed packing provisions (ADR)	: MP9
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V14
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV9, CV12
Special provisions for carriage - Operation (ADR)	: S2
Tunnel restriction code (ADR)	: D

#### - Transport by sea

Special provisions (IMDG)	: 63, 190, 277, 327, 344, 959
Limited quantities (IMDG)	: SP277
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P207, LP02
Special packing provisions (IMDG)	: PP87, L2
EmS-No. (Fire)	: F-D
EmS-No. (Spillage)	: S-U
Stowage category (IMDG)	: None

#### - Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Y203
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 203
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 203
CAO max net quantity (IATA)	: 150kg
Special provisions (IATA)	: A145, A167
ERG code (IATA)	: 10L

#### - Inland waterway transport

Classification code (ADN)	: 5F
Special provisions (ADN)	: 19, 327, 344, 625
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01, VE04
Number of blue cones/lights (ADN)	: 1
Not subject to ADN	: No

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

### - Rail transport

Carriage prohibited (RID) : No

### 14.7. 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

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 100 %

#### 15.1.2. National regulations

##### Germany

VwVwS Annex reference : Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

##### Denmark

Class for fire hazard : Class I-1

Store unit : 1 liter

Classification remarks : F+ <Aerosol 1>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:

Original Document.

Abbreviations and acronyms:

	CAS (Chemical Abstracts Service) number
	ATE: Acute Toxicity Estimate
	CLP: Classification, Labelling, Packaging.
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	NOEC: No Observable Effect Concentration
	OSHA: Occupational Safety & Health Administration
	PNEC: Predicted No Effect Level
	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act



# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

	TWA: Time Weight Average
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Data sources : European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.  
Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.  
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.  
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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of R-, H- and EUH-phrases:

Aerosol 1	Aerosol, Category 1
Flam. Gas 1	Flammable gases, Category 1
Press. Gas	Gases under pressure
H220	Extremely flammable gas
H222	Extremely flammable aerosol
H229	Pressurised container: May burst if heated
R12	Extremely flammable
F+	Extremely flammable

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Aerosol 1	H222;H229	Expert judgment
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SDS EU (REACH Annex II)

**SDS Prepared by:** The Redstone Group, LLC.  
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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

## Annex to the Safety Data Sheet

### Product exposure scenario(s)

ES Type	ES title
Worker	Eco-burner Fuel

### 1. Exposure scenario : Fuel

#### Eco-burner Fuel

ES Type: Worker

Use descriptors	SU22 PROC8a, PROC8b, PROC16 ERC9a ESVOC SPERC 9.12b.v1
Processes, tasks, activities covered	Covers the use as a fuel (or fuel additives and additive components) within closed or contained systems, including incidental exposures during activities associated with its transfer, use, equipment maintenance and handling of waste Professional use

### 2. Operational conditions and risk management measures

#### 2.1 Contributing scenario controlling worker exposure (PROC8a, PROC8b, PROC16)

PROC8a	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non dedicated facilities
PROC8b	Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC16	Using material as fuel sources, limited exposure to unburned product to be expected

### Product characteristics

Physical form of product	Aerosol
Volatility	100% VOC

### Conditions of use

For use ONLY in re-fill of Eco-burner Chafo, as directed by Eco-burner Ltd. Do not use for any other purpose.
Assumes activities are within 0 – 40 °C; Handle in accordance with good industrial hygiene and safety procedures
Use only in a well-ventilated place.
Use only as directed.

### 3. Exposure estimation and reference to its source

#### 3.1. Health

#### Tiered Risk Assessment

##### Tier 1 - Assume worst case scenario

#### Assumptions:

- Complete contents of one can sprayed instantaneously in a very small room
- No room ventilation – airtight room
- Very small room - room interior volume assumed to be 2m x 2m x 3m = 12m<sup>3</sup>

TWA (8-hour) <sup>1</sup>	STEL <sup>1</sup>
1750 mg/m <sup>3</sup>	2180 mg/m <sup>3</sup>

<sup>1</sup> Source – AvantiGas MSDS for AvantiGas Specialised Hydrocarbon Aerosol Propellant. Version: 1.7 Date: 30/11/11

#### Results:

$$\text{Exposure level (mg/m}^3\text{)} = \frac{\text{Weight of Ingredient (g)} \cdot 1000}{\text{Room Size (m}^3\text{)}}$$

$$\text{Exposure level of AP 40} = \frac{374 \text{ (g)} \cdot 1000}{12 \text{ (m}^3\text{)}} = 31,000 \text{ mg/m}^3$$

#### Conclusion:

Exposure level expected to be above TWA/STEL in worst case scenario.

##### Tier 2 - Refine assumptions to model actual aerosol usage

Use British Aerosol Manufacturers Association (BAMA) Indoor Air Modelling Tool

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

**Assumptions:**

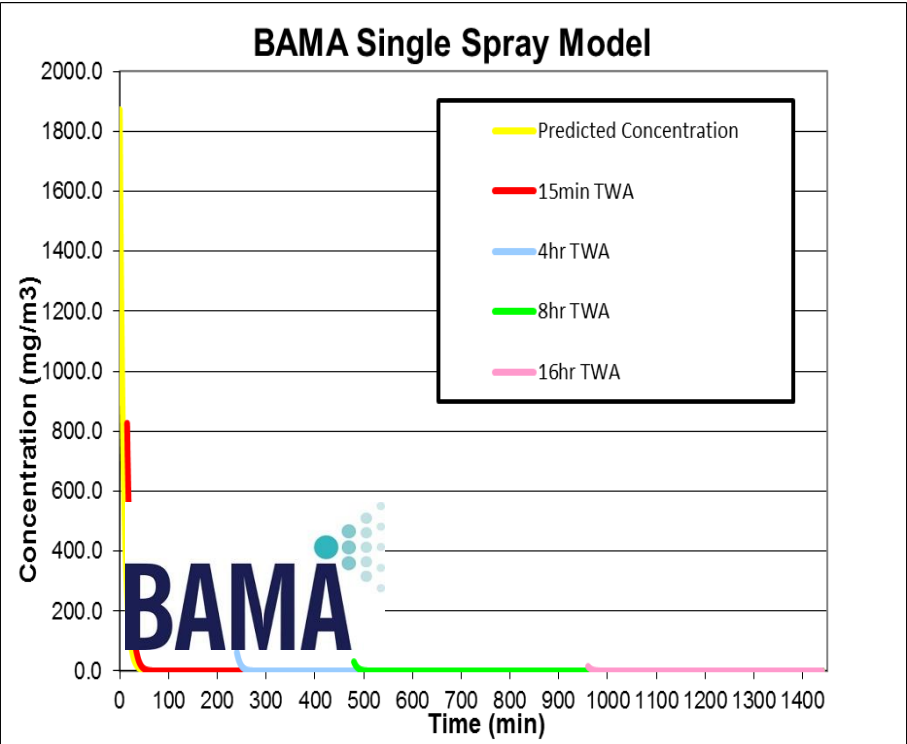
- Spray rate = 0.54 g/s per Chafo (based on average 14g fuel vented during each average Chafo Model 3.0 filling of 26.1 seconds)
- Typical usage = fill 10 Chafos per service
- Chafos filling takes place in a commercial kitchen or restaurant/dining room of 5m\*5m\*3m = 75m<sup>3</sup>
- Ventilated expected to be high in commercial kitchens/restaurants/dining rooms. Recommended Air Change Rate (ACR) for kitchens is 15-60 changes per hour, and for restaurants/dining rooms is 8-12 changes per hour.

**Conditions:**

- Single spray of 260 seconds (10 Chafos x 26 seconds)
- 75m<sup>3</sup> room
- Moderate ventilation of 8 air changes/hour

**Results:**

Input Data	
Room Volume (Litres)	75000
Air Changes per Hour	8
Percent Ingredient (%)	100
Discharge Rate (gm/sec)	0.54
Duration of Spray (sec)	260
Results:	
Initial Concentration mg/m <sup>3</sup>	1872.0
15min TWA mg/m <sup>3</sup>	826.3
4hr TWA mg/m <sup>3</sup>	62.2
8h TWA mg/m <sup>3</sup>	31.2
16h TWA mg/m <sup>3</sup>	15.6
24h TWA mg/m <sup>3</sup>	10.4



**Conclusion:**

Initial concentration and 15 min TWA concentration of AP 40 are below the STEL of 2180 mg/m<sup>3</sup>.  
Longer Term exposure (TWA 8 hours) is well below WEL.

**3.2. Environment**

Exposure to environment not expected.  
Do not discharge into drains or the environment.

Eco-burner Fuel is used only for the filling/re-filling of Eco-burner Chafos, as directed by Eco-burner, Ltd. Directions for safe use should be followed exactly as provided. Based on the results of the hazard assessment, this product does not meet the criteria for classification as dangerous for human health or the environment. Exposure to humans and the environment is expected to be minimal, and there is no cause for concern when used according to the specifications in the hazard assessment and directions for use.

This product is highly flammable, and should be stored away from all heat sources and direct sunlight. Keep out of reach of children.

**4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES**

**4.1. Health**

Guidance - Health	Provide adequate ventilation
	Prevent contact with skin/eyes, do not breathe contents
	While filling Chafos, eliminate all sources of ignition, heat. Keep upwind.
	Do not pierce or burn pressurized container, even after use.
	Dispose of emptied containers with care.

# Eco-burner Fuel

## Extended Safety Data Sheet

according to Regulation (EC) No. 453/2010

### 4.2. Environment

Guidance - Environment	Do not discharge into drains or the environment
	Notify authorities if product enters sewer.

### Additional good practice advice beyond the REACH CSA

Additional good practice advice	Avoid frequent contact with substance. Good standard of general ventilation. Good standard of personal hygiene
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