

# Quick Start

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010  
 Date of issue:4/1/2014 Revision date:9/14/2015Supersedes:9/2/2015 Version: 3.2

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

#### 1.1. Product identifier

Product form : Mixture  
 Article number : 66104  
 Product code : 661  
 Vaporizer : Aerosol

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only.  
 Function or use category : Starting aid

##### 1.2.2. Uses advised against

No additional information available

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

BARDAHL NL - OCD NEDERLAND BV  
 Maxwellstraat 41  
 3316 GP Dordrecht - Nederland  
 T 0031 78 651 2322 - F 0031 78 617 4848  
[rjjonker@bardahl.nl](mailto:rjjonker@bardahl.nl) - [www.bardahl.nl](http://www.bardahl.nl)

#### 1.4. Emergency telephone number

Emergency number : +31 (0) 6 2908 2010  
 During office hours: 8.30 t/m 17:00 h

Country	Organization/Company	Address	Emergency number	Comment
	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol, Category 1 H222;H229  
 Skin corrosion/irritation Category 2 H315  
 Specific target organ toxicity (single exposure) Category 3 H336  
 Aspiration hazard Category 1 H304  
 Hazardous to the aquatic environment - Chronic Hazard Category 3 H412

Full text of H statements : see section 16

#### 2.2. Label elements

##### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients :

diethyl ether, ether, Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes, Hydrocarbons, C6-C7, n-alkanes, iso alkanes, cycloalkanes, <5% of n-hexane

Hazard statements (CLP) :

H222 - Extremely flammable aerosol  
 H229 - Pressurized container: may burst if heated  
 H315 - Causes skin irritation  
 H336 - May cause drowsiness or dizziness  
 H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

# Quick Start

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

smoking  
P251 - Do not pierce or burn, even after use  
P261 - Avoid breathing vapors, spray  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F  
P501 - Dispose of contents/container in accordance with local regulations.  
P101 - If medical advice is needed, have product container or label at hand  
P102 - Keep out of reach of children  
P211 - Do not spray on an open flame or other ignition source

Security closing plug for children. : No  
Tactile warning : No

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/Information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
diethyl ether, ether	(CAS No) 60-29-7 (EC no) 200-467-2 (EC index no) 603-022-00-4 (REACH-no) 01-2119535785-29	25 - 50	Flam. Liq. 1, H224 Acute Tox. 4 (Oral), H302 STOT SE 3, H336
Isobutane	(CAS No) 75-28-5 (EC no) 200-857-2 (REACH-no) 01-2119485395-27	25 - 50	Flam. Gas 1, H220 Compressed gas, H280
propane	(CAS No) 74-98-6 (EC no) 200-827-9 (REACH-no) 01-2119486944-21	10 - 20	Flam. Gas 1, H220 Compressed gas, H280
Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes	(EC no) 927-510-4 (REACH-no) 01-2119475515-33-XXXX	2.5 - 10	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Hydrocarbons, C6-C7, n-alkanes, iso alkanes, cycloalkanes, <5% of n-hexane	(EC no) 921-024-6 (REACH-no) 01-2119475514-35	2.5 - 10	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Butane	(CAS No) 106-97-8 (EC no) 203-448-7 (REACH-no) 01-2119474691-32	2.5 - 10	Flam. Gas 1, H220 Compressed gas, H280

Full text of H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Symptoms of poisoning may even occur after several hours, therefor medical observation for at least 48 hours after the accident.

First-aid measures after inhalation : Assure fresh air breathing. If you feel unwell, seek medical advice. Allow the victim to rest.

First-aid measures after skin contact : Wash skin thoroughly with mild soap and water. Remove contaminated clothing immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Do NOT induce vomiting. Obtain emergency medical attention.

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

No additional information available

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

No additional information available

# Quick Start

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Powder. Carbon dioxide.  
Unsuitable extinguishing media : Do not use a heavy water stream.

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

Hazardous decomposition products in case of fire : High temperature may liberate toxic gases. May form flammable/explosive vapor-air mixture.

#### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Avoid (reject) fire-fighting water to enter environment.  
Protection during firefighting : Wear suitable respiratory equipment.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Protective equipment : Wear proper protective equipment.  
Emergency procedures : Ventilate area. Keep public away from danger area.

##### 6.1.2. For emergency responders

Emergency procedures : Keep away from sources of ignition.

#### 6.2. Environmental precautions

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

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

Methods for cleaning up : Soak up with absorbent material (for example sand, sawdust, neutral absorbent granule, silica gel). Ventilate area.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.  
Precautions for safe handling : Good ventilation of the workplace required. Avoid contact with skin and eyes.

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

Storage conditions : Store in a dry, cool place. Government regulations on storing packagings with pressurized containers must be observed.  
Incompatible materials : heat. Direct sunlight.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

diethyl ether, ether (60-29-7)		
EU	Local name	Diethylether
EU	IOELV TWA (mg/m <sup>3</sup> )	308 mg/m <sup>3</sup>
EU	IOELV TWA (ppm)	100 ppm
EU	IOELV STEL (mg/m <sup>3</sup> )	616 mg/m <sup>3</sup>
EU	IOELV STEL (ppm)	200 ppm
Netherlands	Local name	Diethylether
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	308 mg/m <sup>3</sup>
Netherlands	Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )	616 mg/m <sup>3</sup>
Isobutane (75-28-5)		
Netherlands	Grenswaarde TGG 8H (ppm)	800 ppm
Netherlands	Grenswaarde TGG 15MIN (ppm)	800 ppm
Hydrocarbons, C6-C7, n-alkanes, iso alkanes, cycloalkanes, <5% of n-hexane		
Austria	MAK Short time value (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup>
Butane (106-97-8)		
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>

# Quick Start

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

<b>Butane (106-97-8)</b>		
Netherlands	Grenswaarde TGG 8H (ppm)	800 ppm
Netherlands	Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )	3800 mg/m <sup>3</sup>
Netherlands	Grenswaarde TGG 15MIN (ppm)	1000 ppm
<b>propane (74-98-6)</b>		
EU	IOELV TWA (ppm)	1000 ppm
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	1800 mg/m <sup>3</sup>
Netherlands	Grenswaarde TGG 8H (ppm)	1000 ppm
Netherlands	Suffocating.	

### 8.2. Exposure controls

Personal protective equipment	: Gloves. Safety glasses.
Hand protection	: Wear suitable gloves resistant to chemical penetration. Recommended thickness of the material: ≥ 0.7 mm. Fluorocarbon rubber (Viton)
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. High gas/vapor concentration: gas mask with filter type AX



Other information	: Keep away from food, drink and animal feeding stuffs. Remove contaminated clothing immediately. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Do not breathe gas, fumes, vapour or spray. Avoid contact with skin and eyes.
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## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Appearance	: Aerosol.
Color	: Colorless.
Odor	: Ethereal.
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: > 200 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 0.61352 g/cm <sup>3</sup> @20°C
Solubility	: Practically not miscible. Organic solvent:100%
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Explosive vapor/air mixtures may be formed. Product is not explosive.
Oxidizing properties	: No data available
Explosion limits	: No data available

# Quick Start

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

### 9.2. Other information

VOC content : 613.5 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

No decomposition if used according to specifications.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known.

### 10.4. Conditions to avoid

No additional information available

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

#### diethyl ether, ether (60-29-7)

LD50 oral rat	1215 mg/kg
LC50 inhalation rat (mg/l)	73000 mg/l/4h

#### Isobutane (75-28-5)

LC50 inhalation rat (mg/l)	> 50 mg/l/4h
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#### Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

LD50 oral rat	> 5840 mg/kg
LD50 dermal rat	> 2920 mg/kg
LC50 inhalation rat (mg/l)	> 23300 mg/l/4h

#### Hydrocarbons, C6-C7, n-alkanes, iso alkanes, cycloalkanes, <5% of n-hexane

LD50 oral rat	> 5840 mg/kg
LD50 dermal rat	> 2920 mg/kg
LC50 inhalation rat (mg/l)	< 25.2 mg/l/4h

#### Butane (106-97-8)

LC50 inhalation rat (mg/l)	658 mg/l/4h
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#### propane (74-98-6)

LC50 inhalation rat (mg/l)	20 mg/l/4h
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Skin corrosion/irritation	: No irritant effect.
Serious eye damage/irritation	: No irritant effect.
Respiratory or skin sensitization	: No sensitization responses were observed
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.

#### 66104

Vaporizer	Aerosol
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## SECTION 12: Ecological information

### 12.1. Toxicity

#### Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

EC50 Daphnia 1	3 mg/l
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# Quick Start

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

<b>Hydrocarbons, C6-C7, n-alkanes, iso alkanes, cycloalkanes, &lt;5% of n-hexane</b>	
LC50 other aquatic organisms 1	11.4 mg/l (Oncorhynchus mykiss)
EC50 Daphnia 1	3 mg/l (Daphnia magna)
EC50 72h algae [mg/l] 1	30 - 100 mg/l (Pseudokirchneriella subcapitata)
LOEC (chronic)	0.32 mg/l (Daphnia magna)
NOEC (chronic)	0.17 mg/l (Daphnia magna)

<b>Butane (106-97-8)</b>	
LC50 fish 1	680 mg/l (96h)

### 12.2. Persistence and degradability

<b>Isobutane (75-28-5)</b>	
Persistence and degradability	Readily biodegradable.

<b>Butane (106-97-8)</b>	
Persistence and degradability	Readily biodegradable.

<b>propane (74-98-6)</b>	
Persistence and degradability	Readily biodegradable.

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

<b>66104</b>	
Ecology - soil	Toxic to fish. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Prevent entry to sewers and public waters. Endangering to drinking water.

<b>Isobutane (75-28-5)</b>	
Ecology - soil	If released into the environment, the product will rapidly disperse into the atmosphere where it will undergo photochemical degradation.

<b>Butane (106-97-8)</b>	
Ecology - soil	If released into the environment, the product will rapidly disperse into the atmosphere where it will undergo photochemical degradation.

<b>propane (74-98-6)</b>	
Ecology - soil	If released into the environment, the product will rapidly disperse into the atmosphere where it will undergo photochemical degradation.

### 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

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.
EURLW code	: 16 05 04* - gases in pressure containers (including halons) containing dangerous substances 15 01 04 - metallic packaging

## SECTION 14: Transport information

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

### 14.1. UN number

UN-No. (ADR)	: 1950
UN-No. (IMDG)	: 1950
UN-No. (IATA)	: 1950
UN-No. (ADN)	: 1950
UN-No. (RID)	: 1950

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: AEROSOLS
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
Transport document description (ADR)	: UN 1950 AEROSOLS (Aerosols, Flammable), 2.1, (D)

# Quick Start

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

Transport document description (IMDG) : UN 1950, 2

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 2.1

Hazard labels (ADR) : 2.1



#### IMDG

Transport hazard class(es) (IMDG) : 2

#### IATA

Transport hazard class(es) (IATA) : 2.1

Hazard labels (IATA) : 2.1



#### ADN

Transport hazard class(es) (ADN) : 2

#### RID

Transport hazard class(es) (RID) : 2.1

Hazard labels (RID) : 2.1



### 14.4. Packing group

Packing group (ADR) : Not applicable

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 provision (ADR) : 190, 327, 344, 625

Limited quantities (ADR) : 11

Excepted quantities (ADR) : E0

Transport category (ADR) : 2

Tunnel restriction code (ADR) : D

# Quick Start

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

### - Transport by sea

EmS-No. (Fire) : F-D  
EmS-No. (Spillage) : S-U

### - Air transport

No data available

### - Inland waterway transport

No data available

### - Rail transport

No data available

## 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 REACH substances with Annex XVII restrictions  
Contains no REACH candidate substance  
Contains no REACH Annex XIV substances.

VOC content : 613.5 g/l

#### 15.1.2. National regulations

A Chemical Safety Assessment has not been carried out.

#### Germany

VwVwS Annex reference : Water hazard class (WGK) 2, 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

Waterbezwaarlijkheid : 8 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
Remediation efforts : A - Basically not discharge; If so, then applying best available techniques.  
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

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

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Indication of changes:

	Type of product	Removed	
1.2	Industrial/Professional use spec	Modified	
1.2	Function or use category	Added	
2.2	Precautionary statements (CLP)	Modified	

Abbreviations and acronyms:



# Quick Start

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

Abbreviations and acronyms:  RID: Regulations Concerning the International Transport of Dangerous Goods by Rail ICAO: International Civil Aviation Organization ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent
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### Full text of H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Compressed gas	Gases under pressure Compressed gas
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas
H222	Extremely flammable aerosol
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H229	Pressurized container: may burst if heated
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H336	May cause drowsiness or dizziness
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

### SDS EU (REACH Annex II)

*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*