



MOS DRY

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 17-01-17 Revision date: 07-12-17 Supersedes: 12-06-17 Version: 2.0

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

1.1. Product identifier

Product form : Mixture
Product name : MOS DRY
Product code : 1911 # 731191R3
Vaporizer : 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

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Distributor

SADAPS BARDAHL CORPORATION
BP 50050 MOUVAUX
59589 BONDUES Cedex - France
T 03.10 38 38 38 - F 03.51 08 90 51
industrie@bardahlfrence.com - www.bardahlindustrie.com

Supplier

SADAPS BARDAHL CORPORATION
BP 50050 MOUVAUX
59589 BONDUES Cedex - France
T 03.10 38 38 38 - F 03.51 08 90 51
industrie@bardahlfrence.com - www.bardahlindustrie.com

1.4. Emergency telephone number

Emergency number : +33 (0)1.45.42.59.59

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
United Kingdom	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
Serious eye damage/eye irritation, Category 2 H319
Specific target organ toxicity — Single exposure, Category 3, Narcosis H336
Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411
Full text of H 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

GHS07

GHS09

Signal word (CLP) : Danger

Hazardous ingredients : Hydrocarbons, C6, isoalkanes, <5% n-hexane

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Hazard statements (CLP)	<ul style="list-style-type: none"> : H222 - Extremely flammable aerosol. H229 - Pressurised container: May burst if heated. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	<ul style="list-style-type: none"> : P102 - Keep out of reach of children. P260 - Do not breathe gas, spray. P262 - Do not get in eyes, on skin, or on clothing. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear eye protection, face protection. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 - Call a POISON CENTER, a doctor if you feel unwell. P337+P313 - If eye irritation persists: Get medical advice/attention. P391 - Collect spillage. P501 - Dispose of contents/container to a hazardous or special waste collection point 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. P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
EUH-statements	<ul style="list-style-type: none"> : EUH066 - Repeated exposure may cause skin dryness or cracking.
Extra phrases	<ul style="list-style-type: none"> : Use as per instructions and specifically for this purpose.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C6, isoalkanes, <5% n-hexane	(EC-No.) 931-254-9 (REACH-no) 01-2119484651-34	25 - 50	Flam. Liq. 2, H225 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
butane (<0.1% (203-450-8)) substance with national workplace exposure limit(s) (DE, FR, GB) (Note C)(Note U)	(CAS-No.) 106-97-8 (EC-No.) 203-448-7 (EC Index-No.) 601-004-00-0 (REACH-no) 01-2119474691-32	25 - 50	Flam. Gas 1, H220 Press. Gas (Liq.), H280
n-butyl acetate substance with national workplace exposure limit(s) (FR)	(CAS-No.) 123-86-4 (EC-No.) 204-658-1 (EC Index-No.) 607-025-00-1 (REACH-no) 01-2119485493-29	1 - 5	Flam. Liq. 3, H226 STOT SE 3, H336
titanium tetrabutanolate	(CAS-No.) 5593-70-4 (EC-No.) 227-006-8 (REACH-no) 01-2119967423-33	1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Oleic acid, compound with (Z)-N-octadec-9-enylpropane-1,3-diamine	(CAS-No.) 40027-38-1 (EC-No.) 254-754-2	0,1 - 1	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Aquatic Acute 1, H400 (M=10)
n-hexane	(CAS-No.) 110-54-3 (EC-No.) 203-777-6 (EC Index-No.) 601-037-00-0	0,1 - 1	Flam. Liq. 2, H225 Repr. 2, H361f Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note U : When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

Full text of H-statements: see section 16

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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 medical advice is needed, have product container or label at hand.
- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Remove contaminated clothes. Wash skin with plenty of water. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- First-aid measures after ingestion : Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

- Symptoms/effects after inhalation : Inhalation of vapours may cause respiratory irritation. Vapours may cause drowsiness and dizziness.
- Symptoms/effects after skin contact : Repeated exposure may cause skin dryness or cracking.
- Symptoms/effects after eye contact : Causes serious eye irritation.
- Symptoms/effects after ingestion : Ingestion unlikely.

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. Water spray. Dry powder. Foam.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- 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 : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
- Other information : Prevent liquid from entering sewers, watercourses, underground or low areas.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Eliminate every possible source of ignition. Ensure adequate ventilation, especially in confined areas. Keep public away from danger area. Equip cleanup crew with proper protection.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Dike for recovery or absorb with appropriate material. 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

- For containment : Recover the product with absorbent material.
- Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not eat, drink or smoke when using this product. Provide good ventilation in process area to prevent formation of vapour. For further information refer to section 8: "Exposure controls/personal protection". Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.

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Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation.
 Storage conditions : Keep out of frost.
 Heat and ignition sources : Keep away from naked flames/heat. Keep away from ignition sources. Do not expose to temperatures exceeding 50 °C/ 122 °F.
 Information on mixed storage : Keep away from food, drink and animal feeding stuffs.
 Storage area : Store in a well-ventilated place. Store in a dry place.
 Special rules on packaging : Store in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrocarbons, C6, isoalkanes, <5% n-hexane		
France	VME (mg/m ³)	1000 mg/m ³
France	VLE (mg/m ³)	1500 mg/m ³
butane (<0.1% (203-450-8)) (106-97-8)		
France	VME (mg/m ³)	1900 mg/m ³
France	VME (ppm)	800 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	2400 mg/m ³
United Kingdom	WEL TWA (ppm)	600 ppm
United Kingdom	WEL STEL (ppm)	750 ppm
Switzerland	MAK (mg/m ³)	1900 mg/m ³
Switzerland	MAK (ppm)	800 ppm
Switzerland	KZGW (mg/m ³)	7600 mg/m ³
Switzerland	KZGW (ppm)	3200 ppm
propane (74-98-6)		
USA - ACGIH	ACGIH TWA (mg/m ³)	1800 mg/m ³
n-butyl acetate (123-86-4)		
France	VME (mg/m ³)	710 mg/m ³
France	VME (ppm)	150 ppm
France	VLE (mg/m ³)	940 mg/m ³
France	VLE (ppm)	200 ppm
n-hexane (110-54-3)		
France	VLE (mg/m ³)	72 mg/m ³

8.2. Exposure controls

Hand protection:

Gloves. EN 374

Eye protection:

Safety glasses. EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Good ventilation of the workplace required. Where excessive vapour, mist, or dust may result, use approved respiratory protection equipment



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

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Colour	: Black.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: < 0 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0,75
Solubility	: insoluble in water.
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	: No data available

9.2. Other information

VOC content : 582,2 g/l (91,2%)

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions. Contains gas under pressure; may explode if heated.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Heat. Open flame. Sparks. Water, humidity. Freezing.

10.5. Incompatible materials

Strong oxidizers. Acids. Bases.

10.6. Hazardous decomposition products

Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Hydrocarbons, C6, isoalkanes, <5% n-hexane	
LD50 oral rat	> 1650 mg/kg
LD50 dermal rabbit	> 3360 mg/kg 4h
LC50 inhalation rat (mg/l)	259,354 g/m ³
propane (74-98-6)	
LD50 oral rat	>= 5000 mg/kg
LD50 dermal rabbit	>= 5000 mg/kg
LC50 inhalation rat (mg/l)	>= 50 mg/l/4h
n-butyl acetate (123-86-4)	
LD50 oral rat	10760 mg/kg
LD50 dermal rabbit	14112 mg/kg

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titanium tetrabutanolate (5993-70-4)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	5300 mg/kg
LC50 inhalation rat (mg/l)	20100 mg/l

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

STOT-single exposure : May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

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Vaporizer	Aerosol

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

n-butyl acetate (123-86-4)	
EC50 Daphnia 1	44 mg/l

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

Waste treatment methods	: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Sewage disposal recommendations	: Do not discharge into drains or the environment.
Product/Packaging disposal recommendations	: Collect all waste in suitable and labelled containers and dispose according to local legislation. Dispose used or damaged aerosol cans at permitted disposal sites.
Additional information	: Empty the packaging completely prior to disposal. Do not re-use empty containers.
Ecology - waste materials	: Do not discharge the product into the environment.
European List of Waste (LoW) code	: 14 06 00 - waste organic solvents, refrigerants and foam/aerosol propellants

SECTION 14: Transport information

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

ADR	IMDG	IATA	RID
14.1. UN number			
1950	1950	1950	1950
14.2. UN proper shipping name			
AEROSOLS	AEROSOLS	Aerosols, flammable	AEROSOLS
Transport document description			
UN 1950 AEROSOLS (CONTAINS ; butane (<0.1%	UN 1950 AEROSOLS, 2.1, MARINE	UN 1950 Aerosols, flammable, 2.1, ENVIRONMENTALLY	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY

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ADR	IMDG	IATA	RID
(203-450-8) ; propane), 2.1, (D), ENVIRONMENTALLY HAZARDOUS	POLLUTANT/ENVIRONMENTALLY HAZARDOUS	HAZARDOUS	HAZARDOUS
14.3. Transport hazard class(es)			
2.1	2.1	2.1	2.1
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
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
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
Stowage and handling (IMDG)	: SW1, SW22
Segregation (IMDG)	: SG69

- 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, A802
ERG code (IATA)	: 10L

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- Rail transport

Special provisions (RID)	: 190, 327, 344, 625
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P207, LP200
Special packing provisions (RID)	: PP87, RR6, L2
Mixed packing provisions (RID)	: MP9
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W14
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW12
Colis express (express parcels) (RID)	: CE2
Hazard identification number (RID)	: 23

14.7. Transport in bulk according to Annex II of Marpol 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 substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 582,2 g/l (91,2%)

15.1.2. National regulations

France

Occupational diseases : RG 84 - Affections engendrées par les solvants organiques liquides à usage professionnel

Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (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 : n-hexane is listed

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

Denmark

Class for fire hazard : Add boilingpoint

Store unit : Add boilingpoint

Classification remarks : Add boilingpoint; 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
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No additional information available

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SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Gas 1	Flammable gases, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1C	Skin corrosion/irritation, Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised 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.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

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