

## Safety Data Sheet dated 8/23/2018, version 2

## 1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: **DS-104** 

Other means of identification:

P28293-NA SDS code:

Recommended use of the chemical and restrictions on use

Recommended use:

Solvent

Industrial uses

Professional uses

Restrictions on use:

No uses advised against are identified.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company:

Dysol Inc. - 791 Westport Parkway - Fort Worth, TX 76177 / Phone: 1-817-335-1826 /

csr-na@socomore.com/ Fax Number: 817-335-2405

Distributor: SOCOMORE S.A.S. - Zone Industrielle du Prat - CS 23707 - 56037 VANNES

CEDEX - France - Tel: +33 (0)2 97 43 76 83 - Fax: +33 (0)2 97 54 20 26

Distributor: Socomore Ltd - 5, Coe Avenue - Loughborough - Leicestershire - LE11 4SE - UK - Tel: +44 1509 262040 - Fax: +44 1509 262046

Distributor: Socomore Iberia - Calle Diputacio, 260 - 08007 Barcelona - Espana - Tel: +34 917 693 962 - Fax: +34 902 908 966

Distributor: MagChem Inc. 1271, rue Ampere, suite 101, Boucherville, QC, J4B 5Z5 Canada -Tel: 1-450 641 8500 - Fax: 1-450 655 1717

Distributor: Socomore GmbH - c/o MAZARS GmbH - Theodor-Stern-Kai 1 - 60596 Frankfurt am Main - Deutschland - Tel: +49 (0)89 20 70 28 83 - Fax: +49 (0) 89 88 91 98 16

Distributor: Socomore Trading Shangai - 355 East Kang Qiao Road - Kang Qiao Industrial

Zone - Pudong - 201315 Shangai - Tel: 862158131133 - Fax: 862158131933

Dystrybutor: SOCOMORE SPzoo - Ul. Piekna 18, 00-549 Warszawa Polska - Tel: +48 608 454 114 - Fax: +48 (22) 621 61 09

Competent person responsible for the safety data sheet:

techdirsocomore@socomore.com

Emergency phone number

CHEMTEL: 1-800-255-3924 (USA) / CANUTEC: 1-613-996-6666 (CANADA)

## 2. HAZARD(S) IDENTIFICATION

Classification of the chemical



Warning, Flam. Liq. 3, Flammable liquid and vapour.



Warning, STOT SE 3, May cause drowsiness or dizziness.



Danger, Asp. Tox. 1, May be fatal if swallowed and enters airways.



Label elements

Hazard pictograms:



Danger

Hazard statements:

H226 Flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

Precautionary statements:

P210 Keep away from heat - No smoking.

P240 Ground container and receiving equipment.

P241 Use explosion-proof electrical equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing vapours.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves and eye/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER.

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

Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER if you feel unwell.

P331 Do NOT induce vomiting.

P370+P378 In case of fire, use a CO2 fire extinguisher to extinguish.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

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

Special Provisions:

None

Hazards not otherwise classified identified during the classification process:

Ingredient(s) with unknown acute toxicity:

None.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

>= 60% - < 70% 2-methoxy-1-methylethyl acetate

REACH No.: 01-2119475791-29, Index number: 607-195-00-7, CAS: 108-65-6, EC: 203-603-9

B.6/3 Flam. Liq. 3 H226

>= 25% - < 30% Isoparaffinic Hydrocarbon

CAS: 64742-48-9 B.6/4 Flam. Liq. 4 H227

A.10/1 Asp. Tox. 1 H304



>= 3% - < 5% n-butyl acetate

REACH No.: 01-2119485493-29, Index number: 607-025-00-1, CAS: 123-86-4, EC: 204-658-1

B.6/3 Flam. Liq. 3 H226

A.8/3 STOT SE 3 H336

## 4. FIRST-AID MEASURES

Description of necessary measures

In case of skin contact:

Immediately take off all contaminated clothing.

Remove contaminated clothing immediately and dispose off safely.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do NOT induce vomiting.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

None

Indication of immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

No particular treatment.

## 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

In case of fire, use a CO2 fire extinguisher to extinguish.

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products:

None

Explosive properties: N.A. Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Remove persons to safety.

Use appropriate respiratory protection.



See protective measures under point 7 and 8. Methods and materials for containment and cleaning up Wash with plenty of water.

#### 7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not use on extensive surface areas in premises where there are occupants.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Avoid accumulating electrostatic charge.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Safety electric system.

Storage temperature:

Store at ambient temperature.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

- OEL Type: ACGIH TWA(8h): 150 ppm STEL: 100 ppm
- OEL Type: National TWA(8h): 275 mg/m3, 50 ppm STEL: 550 mg/m3, 100 ppm Notes: France VLEC
- OEL Type: National TWA(8h): 270 mg/m3, 50 ppm Notes: GERMANY
- OEL Type: National TWA(8h): 274 mg/m3, 50 ppm STEL: 548 mg/m3, 100 ppm Notes: UK (WELs)
- OEL Type: National TWA: 260 mg/m3 STEL: 520 mg/m3 Notes: POLAND
- OEL Type: EU TWA(8h): 275 mg/m3, 50 ppm STEL: 550 mg/m3, 100 ppm -

Notes: Skin

- OEL Type: AIHA

- TWA: 50 ppm

Isoparaffinic Hydrocarbon - CAS: 64742-48-9

- OEL Type: OSHA - TWA: 400 mg/m3, 100 ppm

n-butyl acetate - CAS: 123-86-4

- OEL Type: National - TWA: 710 mg/m3, 150 ppm - STEL: 940 mg/m3, 200 ppm - Notes: France

- OEL Type: National TWA: 150 ppm STEL: 200 ppm Notes: United Kingdom
- OEL Type: TWA TWA(8h): 950 mg/m3, 200 ppm Notes: Germany
- OEL Type: ACGIH TWA(8h): 50 ppm STEL: 150 ppm Notes: Eye and URT irr
- OEL Type: National TWA(8h): 723 mg/m3, 150 ppm STEL: 964 mg/m3, 200 ppm Notes: BELGIQUE
- OEL Type: National TWA(8h): 480 mg/m3, 99 ppm Notes: PAYS-BAS



#### **DNEL Exposure Limit Values**

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Worker Industry: 153.5 mg/kg bw/day - Consumer: 54.8 mg/kg bw/day - Exposure:

Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 275 mg/m3 - Consumer: 33 mg/m3 - Exposure: Human Inhalation -

Frequency: Long Term, systemic effects

Consumer: 1.67 mg/kg bw/day - Exposure: Human Oral - Frequency: Long Term,

systemic effects

n-butyl acetate - CAS: 123-86-4

Worker Professional: 11 mg/kg bw/day - Consumer: 6 mg/kg bw/day - Exposure:

Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 300 mg/m3 - Consumer: 35.7 mg/m3 - Exposure: Human

Inhalation - Frequency: Long Term, systemic effects

Consumer: 2 mg/kg bw/day - Exposure: Human Oral - Frequency: Long Term, systemic

effects

Worker Professional: 600 mg/m3 - Consumer: 300 mg/m3 - Exposure: Human

Inhalation - Frequency: Short Term, systemic effects

Worker Professional: 11 mg/kg bw/day - Consumer: 2 mg/kg bw/day - Exposure:

Human Oral - Frequency: Short Term, systemic effects

## **PNEC Exposure Limit Values**

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Target: Fresh Water - Value: 0.635 mg/l Target: Marine water - Value: 0.0635 mg/l

Target: Microorganisms in sewage treatments - Value: 100 mg/l

Target: Freshwater sediments - Value: 3.29 mg/kg Target: Marine water sediments - Value: 0.329 mg/kg

Target: Soil (agricultural) - Value: 0.29 mg/kg

Target: PNEC intermittent - Value: 6.35 mg/l

n-butyl acetate - CAS: 123-86-4

Target: Fresh Water - Value: 0.18 mg/l

Target: Marine water - Value: 0.018 mg/l

Target: Freshwater sediments - Value: 0.981 mg/kg Target: Marine water sediments - Value: 0.0981 mg/kg

Target: Soil (agricultural) - Value: 0.0903 mg/kg

Target: Microorganisms in sewage treatments - Value: 35.6 mg/l

## Appropriate engineering controls:

None

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

None



## 9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Value	Method:	Notes
Appearance and colour:	CLEAR		
	HOMOGENE		
0.15.00	OUS LIQUID		
Odour:	N.A.		
Odour threshold:	N.A.		
pH:	N.A.		
Melting point / freezing point:	N.A.		
Initial boiling point and	121 153 196		
boiling range:	°C/250 308		
	385°F		
Flash Point (°F):	115°F (TTC)		
Flash point (°C):	41°C (TTC)		
Evaporation rate:	<1		
Solid/gas flammability:	N.A.		
Upper/lower flammability	2		
or explosive limits:			
Vapour pressure:	3.5(mmHg@2		
	0°C)		
Vapour density:	>1		
Relative density:	0.89@20°C/6		
	8°F		
Solubility in water:	N.A.		
Solubility in oil:	N.A.		
Partition coefficient	N.A.		
(n-octanol/water):			
Auto-ignition temperature:	250°C/500°F		
Decomposition	N.A.		
temperature:			
Viscosity:	N.A.		
Explosive properties:	N.A.		
Oxidizing properties:	N.A.		

## 9.2. Other information

Properties	Value	Method:	Notes
Miscibility:	N.A.		
Fat Solubility:	N.A.		
Conductivity:	N.A.		
Substance Groups	N.A.		
relevant properties			

## 10. STABILITY AND REACTIVITY

Reactivity

It may generate dangerous reactions (See subsections below) Chemical stability

It may generate dangerous reactions (See subsections below)

Possibility of hazardous reactions

None



Conditions to avoid

Avoid accumulating electrostatic charge.

Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

Hazardous decomposition products

None.

## 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 10.8 mg/l

Test: LC50 - Route: Skin - Species: Rabbit > 5000 mg/kg

n-butyl acetate - CAS: 123-86-4

a) acute toxicity:

Test: LD50 - Route: Skin - Species: Rabbit = 14112 MGKGBWDAY

Test: LD50 - Route: Oral - Species: Rat = 10760 mg/kg

Test: LC50 - Route: Inhalation Dust - Species: Rat = 23.4 mg/l - Duration: 4h Test: LC50 - Route: Inhalation Mist - Species: Rat = 23.4 mg/l - Duration: 4h

Test: LC0 - Route: Inhalation - Species: Rat = 23.4 mg/l - Duration: 4h - Source: OECD

403, in vivo, aerosol

g) reproductive toxicity:

Test: NOAEC - Species: Rat = 3615 mg/m3

Test: LOAEC - Species: Rat = 7230 mg/m3 - Source: OECD

i) STOT-repeated exposure:

Test: NOAEL - Species: Rat = 500 ppm

Substance(s) listed on the NTP report on Carcinogens:

None

Substance(s) listed on the IARC Monographs:

None.

Substance(s) listed as OSHA Carcinogen(s):

None.

Substance(s) listed as NIOSH Carcinogen(s):

None.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** 

Adopt good working practices, so that the product is not released into the environment.

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae > 1000 mg/l

Endpoint: LC50 - Species: Fish = 134 mg/l

Endpoint: EC50 - Species: Daphnia = 408 mg/l

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish = 47.5 mg/l - Duration h: 336 - Notes: Oryzias latipes

Endpoint: NOEC - Species: Daphnia > 100 mg/l - Duration h: 504



n-butyl acetate - CAS: 123-86-4

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 18 mg/l - Duration h: 96 - Notes: Pimephales

promelas

Endpoint: EC50 - Species: Daphnia = 44 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae = 647.7 mg/l - Duration h: 72 - Notes: Desmodesmus

subspicatus

Endpoint: NOEC - Species: Algae = 200 mg/l - Notes: Desmodesmus subspicatus Endpoint: EC50 - Species: bacteria = 356 mg/l - Duration h: 40 - Notes: Tetrahymena

pyriformis

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 23 mg/l - Duration h: 504

Endpoint: IC50 - Species: bacteria = 356 mg/l - Duration h: 40 - Notes: Tetrahymena

pyriformis

Persistence and degradability

n-butyl acetate - CAS: 123-86-4

Biodegradability: Biodegradability rate - Test: N.A. - Duration: 28 days - %: 83 - Notes:

N.A.

Bioaccumulative potential

n-butyl acetate - CAS: 123-86-4

BCF - Test: N.A. 15.3 - Duration: N.A. - Notes: N.A. Log Kow - Test: N.A. 2.3 - Duration: N.A. - Notes: 25°C

Mobility in soil

n-butyl acetate - CAS: 123-86-4

Log Koc - Test: N.A. 1.268 - Duration: N.A. - Notes: N.A.

Volality (H: Henry's Law Constant) - Test: N.A. 28.5 Pa.m3/mol - Duration: N.A. -

Notes: 25°C

Other adverse effects

No harmful effects expected.

## 13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

## 14. TRANSPORT INFORMATION

As defined in the general regulation 49 CFR 173.120(b), this product when shipped as non-bulk can be reclassified as not dangerous.



**UN** number

ADR-UN Number: UN1993 DOT number: UN1993 IATA-UN Number: UN1993 IMDG-UN Number: UN1993

UN proper shipping name

ADR-Shipping Name: FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl

acetate, n-butyl acetate)



DOT-Shipping Name: FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl

acetate, n-butyl acetate)

IATA-Shipping Name: FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl

acetate, n-butyl acetate)

IMDG-Shipping Name: FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl

acetate, n-butyl acetate)

Transport hazard class(es)

ADR-Class: 3
DOT Hazard Class: 3
IATA-Class: 3
IATA-Label: 3
IMDG-Class: 3

Packing group

ADR-Packing Group: III
DOT Packing group: III
IATA-Packing group: III
IMDG-Packing group: III

Environmental hazards

ADR-Enviromental Pollutant: No IMDG-Marine pollutant: No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

N.A.

Special precautions

DOT Special provisions: B1, B52, IB3, T4, TP1, TP29

DOT Labels: 3
ADR-Subsidiary risks: -

ADR-S.P.: B1, B52, IB3, T4, TP1, TP29 ADR-Transport category (Tunnel restriction code): (D/E)

IATA-Passenger Aircraft: 355
IATA-Subsidiary risks: IATA-Cargo Aircraft: 366
IATA-S.P.: A3
IATA-ERG: 3L
IMDG-EmS: F-E

IMDG-Subsidiary risks: -

IMDG-Stowage and handling: Category A

IMDG-Segregation:

Q.L.: 5L Q.E.: E1

## 15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

TSCA inventory: all the components are listed on the TSCA inventory.

, S-E

TSCA listed substances:

2-methoxy-1-methylethyl acetate is listed in TSCA Section 8a - PAIR, Section 8b,

Section 8d HSDR

Isoparaffinic Hydrocarbon is listed in TSCA Section 8b

n-butyl acetate is listed in TSCA Section 8b.

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances: no substances listed.

Section 304 - Hazardous substances: n-butyl acetate. Section 313 - Toxic chemical list: no substances listed.



CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act Substance(s) listed under CERCLA: n-butyl acetate - Reportable quantity: 5000 pounds.

Reportable quantity for mixture: 125000 pounds.

CAA - Clean Air Act

CAA listed substances:

n-butyl acetate is listed in CAA Section 111.

CWA - Clean Water Act

CWA listed substances:

n-butyl acetate is listed in CWA Section 304, Section 311.

## USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

None.

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

n-butyl acetate.

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

n-butyl acetate.

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

n-butyl acetate.

The following substance(s) in this product has/have an identification by CAS number either in countries not affected by the REACH regulation or in regulations not yet updated to reflect the new naming convention for hydrocarbon solvents:

#### 16. OTHER INFORMATION

Full text of phrases referred to in Section 3:

H226 Flammable liquid and vapour.

H227 Combustible liquid.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

Safety Data Sheet dated 8/23/2018, version 2

Disclaimer:

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This Safety Data Sheet cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of

Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical

Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.
GHS: Globally Harmonized System of Classification and Labeling of

Chemicals.

HMIS: Hazardous Materials Identification System IARC: International Agency for Research on Cancer



IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport

Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization"

(ICAO).

IMDG: International Maritime Code for Dangerous Goods. INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods

by Rail.

STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWA: Time-weighted average