

EU SAFETY DATA SHEET

according to Regulation (EC) N° 1907/2006

2 - Methylfuran- HP

Date of first version: 2010-11-30

Date of print: 2018-08-13

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

1.1 Product identifier

Product name	2-Methylfuran -HP
Chemical name	2-Methylfuran-HP
Synonyms	none
Formula	C ₅ H ₆ O
Molecular mass	82,10 g/mol
CAS-N°.	534-22-5
EC-N°.	208-594-5
▶ Registration number	01-2120773938-33-0000

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

Relevant identified uses of the substance or mixture

- ▶ Industrial use: transported isolated intermediate

Use advised against

No uses advised against known

1.3 Details of the supplier of the safety data sheet

Manufacturer	TransFurans Chemicals bvba
Address	Industriepark, Leukaard 2, B-2440 Geel
Telephone number	+32(0)14 57 87 47
Telefax number	+32(0)14 57 87 67
E-mail address	info@transfurans.be

1.4 Emergency telephone numbers

+32(0)14 58 45 45 (24h/24 h)
Information centre on dangerous goods (BIG) (NL, FR, GB, DE)
Technische Schoolstraat 43 A, B-2440 Geel, Belgium

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

According to Regulation (EC) No.1272/2008 (EU-GHS/CLP)

Hazard Class(es) / Hazard Class and Category Code(s)

▶	Flammability	Flam. Liquid. 2
▶	Acute toxicity	Acute Tox. 4 (dermal)
▶	Acute toxicity	Acute Tox. 3 (inhalation, oral)
▶	Skin irritation	Skin Irrit. 2
▶	Eye irritation	Eye Irrit. 2
▶	Specific target organ toxicity	STOT RE 2

2.2 Label elements

According to Regulation (EC) No.1272/2008 (EU-GHS/CLP)

▶ Hazard pictogram(s)



Signal word Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H331	Toxic if inhaled

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- ▶ H312 Harmful in contact with skin
- ▶ H315 Causes skin irritation
- ▶ H319 Causes serious eye irritation
- ▶ H373 May cause damage to organs through prolonged or repeated exposure

Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- ▶ P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P311 Call a POISON CENTER/physician.
- P403+P233 Store in a well ventilated place. Keep container tightly closed.

2.3 Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Main constituent	Identity		Percentage
2- Methylfuran	CAS-N°:	534-22-5	>99 %
	EC N°:	208-594-5	

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation	Remove victim into fresh air. Unconscious: maintain adequate airway and respiration. Consult a doctor/medical service if breathing problems develop.
Skin contact	Rinse with water. Soap may be used. Remove contaminated clothes before washing. Consult a doctor/medical service if irritation persists.
Eye contact	First rinse with plenty of water (remove lenses if possible). If eye irritation persists: Get medical advice / attention. Do not apply neutralizing agents.
Ingestion	Never give water to an unconscious person. Do not induce vomiting. Consult a doctor/medical service if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Acute Symptoms and effects

After inhalation: After exposure to high concentration: Headache, dizziness, suffocation, respiratory tract irritation.
After ingestion: risk of aspiration pneumonia, nausea, vomiting, digestive tract irritation
After skin contact: dry skin
After eye contact: redness of the eye tissue. Slight irritation.

Delayed symptoms and effects

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Not applicable.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, BC powder, carbon dioxide.

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Unsuitable extinguishing media

Water may be ineffective. Water may spread fire
Solid water jet ineffective as extinguishing medium

5.2 Special hazards arising from the substance or mixture

Hazardous combustion product

Gas/vapour spreads at floor level: ignition hazard.
Gas/vapour flammable with air within explosion limits
Upon combustion CO and CO₂ are formed.

Additional Hazards

Not applicable.

5.3 Advice for firefighters

Protective Actions

Cool tanks/drums with water spray/remove them into safety.
Dilute toxic gases with water spray.
Do not move the load if exposed to heat.

Special Protective Equipment

Heat/fire exposure: compressed air/oxygen apparatus
Large spill/in enclosed spaces: compressed air apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

High gas/vapour concentration: compressed air/oxygen apparatus
Gas mask with filter type AX.
Gloves (Natural Rubber, Viton)
Protective goggles
Head/skin protectoin
Heatproof clothing (Butyl Rubber, Viton)

6.2 Environmental precautions

Prevent spreading in sewers
Contain released substance, pump over in suitable containers
Plug the lead, cut off the supply
Dam up the spill liquid
Try to reduce evaporation.

6.3 Methods and material for containment and cleaning up

Advice on spillage containment

Damaged/cooled tanks must be emptied.
Do not use compressed air for pumping over spills.

Appropriate clean up procedures

Take up liquid spill into a non combustible material e.g.: dry sand/earth/vermiculite.
Or kieselguhr.
Scoop absorbed substance into closing containers.
Carefully collect the spill/leftovers.
Take collected spill to manufacturer/competent authority..

Inappropriate containment or clean up techniques

None known.

6.4 Reference to other sections

See also the sections 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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- This substance should be handled under strictly controlled conditions as specified in REACH regulation article 18(4). Site documentation to support safe handling arrangements in accordance with risk-based management system should be available at each site. During the whole lifecycle all necessary measures should be undertaken to minimize emissions and any resulting exposure. Use product only in closed system.

Recommendations for safe handling

Reduce/avoid exposure and/or contact.
Use spark-/explosion proof appliances and lighting systems
Take precautions against electrostatic charges
Handle uncleaned empty containers as full ones.
Do not discharge the waste into the drain.

Advice on occupational hygiene

Do not eat, drink or smoke in work areas.

7.2 Conditions for safe storage, including any incompatibilities

Protection against incompatible substances

Keep container tightly closed.
Ventilation at floor level.
Provide a tub to collect spills.
Keep away from: heat sources, ignition sources, oxidizing agents, acids, bases, organic materials.

Protection against ambient influences

Store in a cool area.
Recommended storage temperature: 20 °C.

Maintenance on the integrity of the substance

Not required.

7.3 Specific end use(s)

Transported isolated intermediate

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Not listed

8.2 Exposure controls

- This substance should be handled under strictly controlled conditions as specified in REACH regulation article 18(4). Site documentation to support safe handling arrangements in accordance with risk-based management system should be available at each site. During the whole lifecycle all necessary measures should be undertaken to minimize emissions and any resulting exposure. Use product only in closed system.

8.2.1 Appropriate engineering controls

Ventilation and local exhaust.

8.2.2 Individual protection measures, such as personal protective

a) Eye/face protection

Protective goggles. (EN 166)

b) Skin protection

Hand protection

Gloves (EN374) Breakthrough time not determined
Suitable material: butyl rubber, viton

Body protection

Protective clothing.
Suitable material: butyl rubber, viton

c) Respiratory protection

High gas/vapour concentration: compressed air/oxygen apparatus
Gas mask with filter type AX (EN 14387)

d) Thermal hazards

Not applicable.

8.2.3 Environmental exposure controls

Direct polluted air of the local exhaust ventilation out of the plant in a manner in

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accordance with environmental regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance (at 20°C)	Liquid
Odour:	Sweet/ether like
Colour:	Colourless to pale yellow
Odour Treshold	N.D.
pH value	N.D.
▶ Melting point/melting range	-88.7°C
▶ Boiling point/boiling range	63.7°C
Flashpoint (tag closed cup)	-30°C
Evaporation rate	
-ratio to butyl acetate	N.D.
-ratio to ether	N.D.
Upper/lower explosive limits	N.D.
▶ Vapour pressure (at 20°C)	142 mmHg
▶ Vapour pressure (at 50°C)	480 mmHg
Relative density(at 20°C)	0.91
▶ Water solubility (20°C)	0.3 g/100ml
Soluble in	Ethanol, ether, ...
Partition coefficient n-octanol/water	log Pow: 1.85
Relative vapour density	2.84
Auto-ignition temperature	N.D.
Decomposition temperature	N.D.
Viscosity(at 20°C)	4m Pa.s
Explosive properties	Violent exothermic reaction with (strong oxidizers), reacts violently with (some) acids/bases
Oxidising properties	Unstabilized product reacts slowly on exposure to air: peroxidation resulting in increased fire or explosion risk.
9.2 Other information	
Saturation concentration	623 g/m ³

SECTION 10: Stability and reactivity

10.1 Reactivity

Not reactive.

10.2 Chemical stability

Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

Exothermic polymerization with explosive violence in the presence of (strong) acids.

10.4 Conditions to avoid

Keep away from: heat sources, ignition sources, oxidizing agents, acids, bases, organic materials.

10.5 Incompatible materials

Reacts violently with oxidants and strong acids (polymerization).

10.6 Hazardous decomposition products

Upon decomposition emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 Acute toxicity	
▶ LD50 (oral, rat) (mg/kg)	133
▶ LD50 (dermal, rabbit) (mg/kg)	1600 (24h) (percutaneous administration)
▶ LC50 (inhalation, rat, 4 hours) (ppm)	742
11.1.2 Skin corrosion/irritation	Mild skin irritation.
11.1.3 Serious eye damage/irritation	Mild eye irritation.
11.1.4 Respiratory or skin sensitization	No data available
11.1.5 Germ cell mutagenicity	Different studies in vitro and in vivo are available: substance should not be considered genotoxic/mutagenic.
11.1.6 Carcinogenicity	No data available
11.1.7 Reproductive toxicity	No data available
11.1.8 STOT- single exposure	No data available
11.1.9 STOT- repeated exposure	Centrilobular necrosis findings observed in a oral repeated dose toxicity study.
11.1.10 Aspiration hazard	No data available

SECTION 12: Ecological information

12.1 Toxicity	
▶ LC50 (fish, 48 hours) (mg/l)	Average 431.5 (average of 237 and 626)
▶ EC50 (Daphnia, 24 hours) (mg/l)	888
▶ NOEC (blue-green algae, 8d) (mg/l)	40
12.2 Persistence and degradability	
▶ Biodegradability	Not readily biodegradable
12.3 Bioaccumulative potential	
Partition coefficient: n-octanol water (conc in organisms / conc. in water)	log Pow:1.85
12.4 Mobility in soil	
Adsorption coefficient (Koc) solid phase / liquid phase	N.D.
12.5 Results of PBT and vPvB assessment	N.D.
12.6 Other adverse effects	
Water hazard class (WGK Germany)	1

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Substance

Recycling by distillation.
Removal to an authorized waste incinerator for solvents or as chemical waste in accordance with local regulations. Do not discharge wastewater into sewer.

European waste list (EURAL)

07 01 04* (other organic solvents, washing liquids and mother liquors)

Waste Material code (Flanders)

015; 034

Packaging/container

15 01 10* (packaging containing residues of or contaminated

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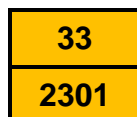
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by dangerous substances)

SECTION 14: Transport information



14.1 UN Number	2301
14.2 UN proper shipping name	UN 2301, 2-METHYLFURAN
14.3 Transport hazard class(es)	ADR/ADNR/RID: Class 3, code F1 IMDG: Class 3 ICAO: Class 3
14.4 Packing group	II
14.5 Environmental hazards Marine pollutant	-
14.6 Specials precautions for user	
Risk label(s)	3
Tunnel category	2 (D/E)
Hazard Identification Number (Kemler code)	33
Emergency Schedules (EmS)	
- Fire schedule	F-E
- Spillage schedule	S-D
ICAO (air transport)	
- Packing instructions passenger aircraft	305/Y305
- Packing instructions cargo aircraft	307
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**
Not available.
- 15.2 Chemical safety assessment**
▶ Not applicable.

SECTION 16: Other information

- 16.1 Changes to the previous version.**
Update according to Reach registration dossier (transported isolated intermediate).
▶ Indicates changes in content from previously issued version.
Date of revision: 08 August 2018
Version: 009
Date of previous version: 01 March 2016
- 16.2 Abbreviations and acronyms**

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EC50	Effect Concentration, 50 percent
GHS / CLP	Globally Harmonised System / Classification, Labelling and Packaging
LC50	Lethal Concentration, 50 percent
LD50	Lethal Dose, 50 percent
PBT	Persistent, Bioaccumulative and Toxic
STOT	Single Target Organ Toxicity
vPvB	very Persistent and very Bioaccumulative