

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

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

- **Product identifier**
- **Trade name:** Pesticides Standard (1 x 1 mL)
- **Part number:** NPM-110-1
- **Relevant identified uses of the substance or mixture and uses advised against**
Reagents and Standards for Analytical Chemical Laboratory Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str.8
76337 Waldbronn
Germany
- **Further information obtainable from:**
Telephone: 0800 603 1000
pdl-msds_author@agilent.com
- **Emergency telephone number:** CHEMTREC®: +(44)-870-8200418

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 1)

· Hazard pictograms


GHS02 GHS06 GHS09

· Signal word Danger
· Hazard-determining components of labelling:

tert-butyl methyl ether
ethoprophos (ISO)
mevinphos (ISO)
p-nitroaniline

· Hazard statements

H225 Highly flammable liquid and vapour.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H410 Very toxic to aquatic life with long lasting effects.

· Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P312	Call a POISON CENTER/doctor if you feel unwell.
P321	Specific treatment (see on this label).
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P370+P378	In case of fire: Use for extinction: CO ₂ , powder or water spray.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:

Contains atrazine (ISO), ethoprophos (ISO), triadimefon (ISO). May produce an allergic reaction.

· Other hazards
· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

GB

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 2)

3 Composition/information on ingredients

· **Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 1634-04-4 EINECS: 216-653-1	tert-butyl methyl ether ⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 3, H311; ⚠ Skin Irrit. 2, H315	98.784%
CAS: 1912-24-9 EINECS: 217-617-8	atrazine (ISO) ⚠ STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	0.135%
CAS: 100-01-6 EINECS: 202-810-1	p-nitroaniline ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ STOT RE 2, H373; Aquatic Chronic 3, H412	0.135%
CAS: 13194-48-4 EINECS: 236-152-1	ethoprophos (ISO) ⚠ Acute Tox. 3, H301; Acute Tox. 1, H310; Acute Tox. 2, H330; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1, H317	0.135%
CAS: 7786-34-7 EINECS: 232-095-1	mevinphos (ISO) ⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.135%
CAS: 139-40-2 EINECS: 205-359-9	propazine ⚠ Carc. 2, H351; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.135%
CAS: 886-50-0 EINECS: 212-950-5	terbutryn ⚠ Aquatic Acute 1, H400	0.135%
CAS: 43121-43-3 EINECS: 256-103-8	triadimefon (ISO) ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	0.135%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 3)

- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

Ingredients with limit values that require monitoring at the workplace:
1634-04-4 tert-butyl methyl ether

WEL	Short-term value: 367 mg/m ³ , 100 ppm
	Long-term value: 183.5 mg/m ³ , 50 ppm

- **Additional information:** The lists valid during the making were used as basis.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 4)

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

- **Respiratory protection:**

When used as intended with Agilent instruments the use of the product under normal laboratory conditions and with standard practices does not result in significant airborne exposures and therefore respiratory protection is not needed.

Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved device equipment with appropriate organic or acid gas cartridge.

- **Protection of hands:**

Although not recommended for constant contact with the chemicals or for clean up, nitrile gloves 11-13mil thickness are recommended for normal use. The breakthrough time is 1hr. For cleaning a spill where there is direct contact of the chemical, butyl rubber gloves are recommended 12-15mil thickness with breakthrough times exceeding 4 hrs. Supplier recommendations should be followed.

- **Material of gloves**

For normal use: nitrile rubber, 11-13 mil thickness

For direct contact with the chemical: butyl rubber, 12-15 mil thickness

- **Penetration time of glove material**

For normal use: nitrile rubber: 1 hour

For direct contact with the chemical: butyl rubber: > 4 hours

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid

Colour: Colourless

· **Odour:** Characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

- **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 55.2 °C

· **Flash point:** -33 °C

· **Flammability (solid, gas):** Not applicable.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 5)

· Ignition temperature:	374 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	1.6 Vol %
Upper:	8.4 Vol %
· Vapour pressure at 20 °C:	279 hPa
· Density at 20 °C:	0.74 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water at 25 °C:	51 g/l
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic at 20 °C:	0.27 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	99.2 %
VOC (EC)	99.19 %
· Solids content:	0.8 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**
Toxic in contact with skin.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 6)

· LD/LC50 values relevant for classification:
ATE (Acute Toxicity Estimates)

Oral	LD50	2,033 mg/kg (rat)
Dermal	LD50	528 mg/kg
Inhalative	LC50/4 h	2,221 mg/L

1634-04-4 tert-butyl methyl ether

Oral	LD50	4,000 mg/kg (rat)
Dermal	LD50	1,000 mg/kg (rabbit)
Inhalative	LC50/4 h	23,576 mg/L (rat)

1912-24-9 atrazine (ISO)

Oral	LD50	672 mg/kg (rat)
Dermal	LD50	7,500 mg/kg (rabbit)
Inhalative	LC50/4 h	5,200 mg/L (rat)

100-01-6 p-nitroaniline

Oral	LD50	750 mg/kg (rat)
------	------	-----------------

13194-48-4 ethoprophos (ISO)

Oral	LD50	34 mg/kg (rat)
Dermal	LD50	26 mg/kg (rat) 2.4 mg/kg (rabbit)
Inhalative	LC50/4 h	125 mg/L (rat)

7786-34-7 mevinphos (ISO)

Oral	LD50	3 mg/kg (rat)
Dermal	LD50	4 mg/kg (rat)

139-40-2 propazine

Oral	LD50	3,840 mg/kg (rat)
Dermal	LD50	>10,200 mg/kg (rabbit)

886-50-0 terbutryn

Oral	LD50	2,045 mg/kg (rat)
Dermal	LD50	>10,200 mg/kg (rat)
Inhalative	LC50/4 h	>8,000 mg/L (rat)

43121-43-3 triadimefon (ISO)

Oral	LD50	363 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rat)
Inhalative	LC50/4 h	>480 mg/L (rat)

· Primary irritant effect:
· Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation Based on available data, the classification criteria are not met.

· Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
· Germ cell mutagenicity Based on available data, the classification criteria are not met.

· Carcinogenicity Based on available data, the classification criteria are not met.

· Reproductive toxicity Based on available data, the classification criteria are not met.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 7)

- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxic effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

HP 3	Flammable
HP 4	Irritant - skin irritation and eye damage
HP 6	Acute Toxicity
HP 14	Ecotoxic

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Not Regulated, De minimus Quantities**

-

- **UN-Number**
- **ADR, IMDG, IATA**

UN3021

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 8)

· **UN proper shipping name**
· **ADR** 3021 PESTICIDE, LIQUID, FLAMMABLE, TOXIC, N.O.S. (METHYL tert-BUTYL ETHER), ENVIRONMENTALLY HAZARDOUS
· **IMDG** PESTICIDE, LIQUID, FLAMMABLE, TOXIC, N.O.S. (METHYL tert-BUTYL ETHER, mevinphos (ISO)), MARINE POLLUTANT
· **IATA** PESTICIDE, LIQUID, FLAMMABLE, TOXIC, N.O.S. (METHYL tert-BUTYL ETHER)

· **Transport hazard class(es)**

· **ADR**

· **Class**

3 Flammable liquids.

· **Label**

3+6.1

· **IMDG**

· **Class**

3 Flammable liquids.

· **Label**

3/6.1

· **IATA**

· **Class**

3 Flammable liquids.

· **Label**

3 (6.1)

· **Packing group**

· **ADR, IMDG, IATA**

II

· **Environmental hazards:**

Product contains environmentally hazardous substances:
ethoprophos (ISO)

· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (ADR):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Flammable liquids.

· **Danger code (Kemler):**

336

· **EMS Number:**

F-E,S-D

· **Stowage Category**

B

· **Stowage Code**

SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 9)

· Transport/Additional information:
· ADR

- Limited quantities (LQ)
- Excepted quantities (EQ)

1L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· Transport category

2

· Tunnel restriction code

D/E

· IMDG

- Limited quantities (LQ)
- Excepted quantities (EQ)

1L

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· UN "Model Regulation":

UN 3021 PESTICIDE, LIQUID, FLAMMABLE, TOXIC, N.O.S. (METHYL TERT-BUTYL ETHER), 3 (6.1), II, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· Directive 2012/18/EU
· Named dangerous substances - ANNEX I None of the ingredients is listed.

· Seveso category

E1 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

· Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t

· Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

· Regulation (EU) No 649/2012

1912-24-9 atrazine (ISO)

Annex I Part 1

Annex I Part 2

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent's state of knowledge at the time of preparation.

No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· Relevant phrases

H225 Highly flammable liquid and vapour.

H300 Fatal if swallowed.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H310 Fatal in contact with skin.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

(Contd. on page 11)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.04.2019

Version number 1

Revision: 22.04.2019

Trade name: Pesticides Standard (1 x 1 mL)

(Contd. of page 10)

H330 Fatal if inhaled.
H331 Toxic if inhaled.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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 Harmonised 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
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 1: Acute toxicity – Category 1
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 2: Acute toxicity – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

GB