

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2476-32 m-Nitrophenol Indicator Solution

Revision date: 04.09.2017

Product code: 247632

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

2476-32 m-Nitrophenol Indicator Solution

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Water analysis

1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH
Street: Willstätterstr. 11
Place: D-40549 Düsseldorf
Telephone: +49 (0)211 5288-383
e-mail: SDS@hach.com
Internet: www.de.hach.com
Responsible Department: HACH LANGE Ltd.
5, Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487 * Fax +44 (0) 161 848 7324
e-Mail: info-uk@hach.com

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
IRL-Dublin 12
Tel. +353 (0)1 4602522
e-Mail: info-ie@hach.com

1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Flammable liquid: Flam. Liq. 2

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Reproductive toxicity: Repr. 1B

Specific target organ toxicity - single exposure: STOT SE 1

Specific target organ toxicity - repeated exposure: STOT RE 1

Hazard Statements:

Highly flammable liquid and vapour.

Harmful if swallowed.

Harmful in contact with skin.

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May damage the unborn child.

Causes damage to organs.

Causes damage to organs through prolonged or repeated exposure.

2.2. Label elements

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Regulation (EC) No. 1272/2008

Hazard components for labelling

methanol
N,N-dimethylformamide; dimethyl formamide
3-Nitrophenol

Signal word: Danger

Pictograms:



Hazard statements

H225 Highly flammable liquid and vapour.
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H360D May damage the unborn child.
H370 Causes damage to organs.
H372 Causes 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.
P243 Take action to prevent static discharges.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

2.3. Other hazards

no data available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
67-56-1	methanol			55-65%
	200-659-6	603-001-00-X		
	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Irrit. 2, Eye Irrit. 2, STOT SE 1, STOT RE 1; H225 H331 H311 H301 H315 H319 H370 H372			
68-12-2	N,N-dimethylformamide; dimethyl formamide			35-45 %
	200-679-5	616-001-00-X		
	Repr. 1B, Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2; H360D *** H332 H312 H319			
554-84-7	3-Nitrophenol			< 2 %
	209-073-5			
	Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1; H302 H315 H318			

Full text of H and EUH statements: see section 16.

Further Information

This product contains substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
N,N-dimethylformamide; dimethyl formamide

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off all contaminated clothing immediately.
Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air. Call a physician immediately.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Call a physician immediately.

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After ingestion

Ingest immediately about 350 ml (5 ml/kg body weight) of activated charcoal slurry. Note: To prepare activated charcoal slurry, mix thoroughly 50 g of activated charcoal in 400 ml (about 2 cups) water.
Never give anything by mouth to an unconscious person.
Induce vomiting immediately and call a physician.

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

In case of skin contact: Irritation and corrosion, Nausea, Vomiting
If inhaled: Harmful, Inhalation of mist causes irritation of respiratory system.
If swallowed: Nausea, Vomiting, Liver and kidney injuries may occur.
In case of eye contact irritant effects

May cause harm to the unborn child.

Toxic by inhalation, in contact with skin and if swallowed. - Danger of very serious irreversible effects.

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

Treat symptomatically.

SECTION 5: Firefighting measures

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5.1. Extinguishing media

Suitable extinguishing media

Water, Carbon dioxide (CO₂), Alcohol-resistant foam, Dry powder.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Highly flammable.

5.2. Special hazards arising from the substance or mixture

H225 - Highly flammable liquid and vapour.

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.

Ensure adequate ventilation. Do not breathe vapours, mist or gas.

Remove all sources of ignition.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

Should not be released into the environment.

6.3. Methods and material for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Do not breathe vapours or spray mist.

Avoid contact with skin and eyes. Wash thoroughly after handling.

Advice on protection against fire and explosion

See also section 5.

Further information on handling

Observe label precautions.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry and well-ventilated place.

Protect from light, moisture and damage.

Keep away from heat and sources of ignition.

Keep away from combustible materials.

Keep container closed when not in use.

Hints on joint storage

Protect against Acids, Oxidizing agents, Alkali metals

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Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL
68-12-2	N,N-Dimethylformamide	5	15		TWA (8 h)	WEL
		10	30		STEL (15 min)	WEL

Additional advice on limit values

None known.

8.2. Exposure controls

Appropriate engineering controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Ensure that eye flushing systems and safety showers are located close to the working place.

Use only in area provided with appropriate exhaust ventilation.

General industrial hygiene practice.

Eye/face protection

Safety glasses with side-shields

Hand protection

Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

In case of full contact:

Glove material : Nitrile rubber

Layer thickness: 0,11 mm

Break through time: 480 min

In case of contact through splashing:

Glove material : Nitrile rubber

Layer thickness: 0,11 mm

Break through time: 60 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Provide adequate ventilation.

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Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Environmental exposure controls

Do not flush into surface water or sanitary sewer system.
Prevent further leakage or spillage if safe to do so.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: yellow
Odour: alcohol-like

pH-Value (at 20 °C): 8,3

Changes in the physical state

Melting point: no data available
Initial boiling point and boiling range: 67 °C
Sublimation point: no data available
Softening point: no data available
Pour point: no data available
:
Flash point: 12,8 °C
Sustaining combustion: No data available

Flammability

Solid: not applicable
Gas: not applicable

Explosive properties

not applicable

Lower explosion limits: no data available
Upper explosion limits: no data available
Ignition temperature: no data available

Auto-ignition temperature

Solid: no data available
Gas: no data available

Decomposition temperature: no data available

Oxidizing properties

no data available

Vapour pressure: no data available
Vapour pressure: no data available

Density (at 20 °C): 0,85 g/cm³
Bulk density: no data available

Water solubility: no data available soluble

Solubility in other solvents

no data available

Partition coefficient: no data available

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Test method

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Flow time:	no data available
Vapour density:	no data available
Evaporation rate:	no data available
Solvent separation test:	no data available

9.2. Other information

no data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Hazard: Oxidizing agents, Nitric acid, Alkali metals

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Heat, flames and sparks.

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Nitric acid, Alkali metals, Oxidizing agents

10.6. Hazardous decomposition products

nitrogen oxides (NO_x), Carbon monoxide, Carbon dioxide (CO₂)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No toxicology information is available.

Acute toxicity

Harmful by inhalation, in contact with skin and if swallowed.

ATEmix calculated

ATE (oral) 180,3 mg/kg; ATE (dermal) 447,5 mg/kg; ATE (inhalation vapour) 10,54 mg/l; ATE (inhalation aerosol) 0,717 mg/l

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CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
67-56-1	methanol					
	oral	LD50 mg/kg	5628	rat		
	dermal	LD50 mg/kg	17100	rabbits		
	inhalation (4 h) vapour	LC50	10 mg/l	rat		
	inhalation aerosol	ATE	0,5 mg/l			
68-12-2	N,N-dimethylformamide; dimethyl formamide					
	dermal	ATE mg/kg	1100			
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			
554-84-7	3-Nitrophenol					
	oral	LD50 mg/kg	328	Ratte	RTECS	

Irritation and corrosivity

Severe eye irritation.
Causes skin irritation.

Sensitising effects

This information is not available.

Carcinogenic/mutagenic/toxic effects for reproduction

H360F - May damage fertility.

STOT-single exposure

The substance or mixture is classified as specific target organ toxicant, single exposure, category 1.

STOT-repeated exposure

The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

Aspiration hazard

No data is available on the product itself.

Specific effects in experiment on an animal

methanol: LD50/dermal/rabbit = 15800 mg/kg
N,N-dimethylformamide; dimethyl formamide: LD50/dermal/rabbit = 4720 mg/kg

Additional information on tests

No data is available on the product itself.

Practical experience
Observations relevant to classification

No data is available on the product itself.

Other observations

No data is available on the product itself.

Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information
12.1. Toxicity

Do not flush into surface water or sanitary sewer system.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
67-56-1	methanol					
	Acute fish toxicity	LC50 mg/l	15400	96 h	Lepomis macrochirus (Bluegill sunfish)	
	Acute algae toxicity	ErC50 mg/l	22000	96 h	Pseudokirchneriella subcapitata (green algae)	
	Acute crustacea toxicity	EC50 mg/l	24500	48 h	Crustaceans	

12.2. Persistence and degradability

No data is available on the product itself.

12.3. Bioaccumulative potential

No data is available on the product itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
67-56-1	methanol	-0,77
68-12-2	N,N-dimethylformamide; dimethyl formamide	0,85

12.4. Mobility in soil

No data is available on the product itself.

12.5. Results of PBT and vPvB assessment

No data is available on the product itself.

12.6. Other adverse effects

No data is available on the product itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

In accordance with local and national regulations.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Waste disposal number of contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Contaminated packaging

Dispose of as unused product.

The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

UN 1230

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14.2. UN proper shipping name: METHANOL
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+6.1



Classification code: FT1
 Special Provisions: 279
 Limited quantity: 1 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 336
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

14.1. UN number: UN 1230
14.2. UN proper shipping name: METHANOL
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+6.1



Special Provisions: 279
 Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1230
14.2. UN proper shipping name: METHANOL
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3+6.1



Special Provisions: A104 A113
 Limited quantity Passenger: 1 L
 Passenger LQ: Y341
 Excepted quantity: E2
 IATA-packing instructions - Passenger: 352
 IATA-max. quantity - Passenger: 1 L
 IATA-packing instructions - Cargo: 364
 IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

no data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):

N,N-dimethylformamide; dimethyl formamide

Restrictions on use (REACH, annex XVII):

Entry 30: N,N-dimethylformamide; dimethyl formamide

Entry 69: methanol

National regulatory information

Employment restrictions:

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D):

1 - slightly water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

Revision: 4.09.2017

Safety datasheet sections which have been updated: 2, 11

Revision: 5.07.2017

Safety datasheet sections which have been updated: 2, 11

Revision: 12.04.2016

Safety datasheet sections which have been updated: 3

Revision: 23.11.2015

Safety datasheet sections which have been updated: 1-16

Revision: 24.01.2013

Safety datasheet sections which have been updated: 1-16

Revision: 01.08.2006

Safety datasheet sections which have been updated: 1-16

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Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 4; H302	
Acute Tox. 4; H312	
Acute Tox. 4; H332	
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Repr. 1B; H360D	Calculation method
STOT SE 1; H370	Calculation method
STOT RE 1; H372	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H360D	May damage the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)