

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

1 Identification

Trade name: PS-20 / PS-22 Indicator Solution

Relevant identified uses of the substance or mixture and uses advised against Professional use

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Kester LLC
800 West Thorndale Avenue
Itasca, IL 60143 USA
Tel (630) 616-4000
Tel International 00 1 630 616-4000

ITW Specialty Materials (Suzhou) Co., Ltd.
Heng Qiao Road
Wujiang Economic Development Zone
Suzhou, Jiangsu 215200 China
Tel +86 512 82060808

Kester GmbH
Ganghofer Strasse 45
D-82216 Gernlinden Germany
Tel +49 (0) 8142 4785 0

Information department: EHS_Kester@kester.com

Emergency telephone number:

CHEMTREC 24-Hour Emergency Response Telephone Number: International +1 703 741-5970

2 Hazard(s) identification

Classification of the substance or mixture



GHS02 Flame

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



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1B H350 May cause cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT SE 1 H370 Causes damage to organs.

Label elements

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

Safety Data Sheet
acc. to OSHA HCS

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 1)

Hazard pictograms



GHS02 GHS06 GHS08

Signal word Danger

Hazard-determining components of labeling:

methanol
phenolphthalein

Hazard statements

H225 Highly flammable liquid and vapor.
H331 Toxic if inhaled.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H370 Causes damage to organs.

Precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
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.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
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.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P321 Specific treatment (see on this label).
P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
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 local/regional/national/international regulations.

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 2)

3 Composition/information on ingredients

Chemical characterization: Substances

CAS No. Description

67-56-1 methanol

Identification number(s)

EC number: 200-659-6

Index number: 603-001-00-X

Chemical characterization: Mixtures

Description: Mixture

Dangerous components:

67-56-1	methanol	>50– 100%
77-09-8	phenolphthalein	1– 2.5%

SVHC

77-09-8	phenolphthalein
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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.

Remove breathing apparatus only after contaminated clothing have been completely removed.

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

After inhalation:

Supply fresh air or oxygen; call for doctor.

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 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

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

For safety reasons unsuitable extinguishing agents: Water with full jet

Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

(Contd. on page 4)

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 3)

Advice for firefighters**Protective equipment:** Mouth respiratory protective device.**6 Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Environmental precautions: 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**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

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 receptacle 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 systems:** No further data; see item 7.

(Contd. on page 5)

US

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 4)

Control parameters

Components with limit values that require monitoring at the workplace:

67-56-1 methanol

PEL (USA)	Long-term value: 260 mg/m ³ , 200 ppm
REL (USA)	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV (USA)	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI

Ingredients with biological limit values:

67-56-1 methanol

BEI (USA)	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
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Additional information: The lists that were valid during the creation were used as basis.

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.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Not necessary if room is well-ventilated.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 5)

Eye protection:



Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid
Color: Colorless
Odor: Alcohol-like
Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: -98 °C (-144.4 °F)
Boiling point/Boiling range: 64.7 °C (148.5 °F)

Flash point: 12 °C (53.6 °F)

Flammability (solid, gaseous): Not applicable.

Ignition temperature: 455 °C (851 °F)

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

Explosion limits:

Lower: 5.5 Vol %
Upper: 44 Vol %

Vapor pressure at 20 °C (68 °F): 128 hPa (96 mm Hg)

Density at 20 °C (68 °F): 0.79112 g/cm³ (6.6019 lbs/gal)

Relative density Not determined.

Vapor density Not determined.

Evaporation rate Not determined.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic: Not determined.

(Contd. on page 7)

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 6)

Kinematic:	Not determined.
Solvent content:	
Organic solvents:	98.9 %
VOC content:	98.88 % 782.3 g/l / 6.53 lb/gal
Solids content:	1.1 %
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:

LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Inhalative	LC50/4 h	3.03 mg/l
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67-56-1 methanol

Oral	LD50	5,628 mg/kg (rat)
Dermal	LD50	15,800 mg/kg (rabbit)
Inhalative	LC50/4 h	3 mg/l (ATE)

Primary irritant effect:

on the skin: No irritant effect.

on the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic

Carcinogenic categories

IARC (International Agency for Research on Cancer)

77-09-8	phenolphthalein	
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2B

(Contd. on page 8)

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 7)

NTP (National Toxicology Program)

77-09-8 phenolphthalein

R

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

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 of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

UN-Number

DOT, ADR, IMDG, IATA

UN1230

UN proper shipping name

DOT

Methanol solution

ADR

1230 METHANOL solution

IMDG, IATA

METHANOL solution

(Contd. on page 9)

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 8)

Transport hazard class(es)

DOT



Class Label 3 Flammable liquids
3, 6.1

ADR



Class Label 3 (FT1) Flammable liquids
3+6.1

IMDG



Class Label 3 Flammable liquids
3/6.1

IATA



Class Label 3 Flammable liquids
3 (6.1)

Packing group
DOT, IMDG, IATA II

Environmental hazards: Not applicable.

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
MARPOL73/78 and the IBC Code** Not applicable.

(Contd. on page 10)

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

Version number 20

Reviewed on 05/03/2019

Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 9)

Transport/Additional information:

DOT

Quantity limitations

On passenger aircraft/rail: 1 L
On cargo aircraft only: 60 L

ADR

Excepted quantities (EQ)

Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

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 1230 METHANOL SOLUTION, 3 (6.1), II

15 Regulatory information

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

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

All ingredients are listed.

TSCA (Toxic Substances Control Act): (Substances not listed)

All ingredients are listed.

Hazardous Air Pollutants

67-56-1 | methanol

Proposition 65

Chemicals known to cause cancer:

77-09-8 | phenolphthalein

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

67-56-1 | methanol

(Contd. on page 11)

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

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Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 10)

Carcinogenic categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS02 GHS06 GHS08

Signal word Danger

Hazard-determining components of labeling:

methanol

phenolphthalein

Hazard statements

H225 Highly flammable liquid and vapor.

H331 Toxic if inhaled.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H361 Suspected of damaging fertility or the unborn child.

H370 Causes damage to organs.

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

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.

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P321 Specific treatment (see on this label).

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

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

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

(Contd. on page 12)

**Safety Data Sheet
acc. to OSHA HCS**

Printing date 05/03/2019

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Trade name: PS-20 / PS-22 Indicator Solution

(Contd. of page 11)

P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations:**Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact: EHS_Kester@Kester.com

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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Muta. 2: Germ cell mutagenicity – Category 2

Carc. 1B: Carcinogenicity – Category 1B

Repr. 2: Reproductive toxicity – Category 2

STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

*** Data compared to the previous version altered.**