

Microshield® PVP Solution

Version
4.1.1.1Revision date
03/03/2020Date of last issue: 03/03/2020
Date of first issue: Not available

Section 1:	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
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|------------|--|---|--|
| 1.1 | Product Identifier | : | Microshield® PVP Solution |
| 1.2 | Relevant identified uses of the substance or mixture and uses advised against | | |
| | Use of the Substance/Mixture | : | Pre and Post-Surgical Skin Antisepsis |
| | Recommended restrictions on use | : | Avoid contact with eyes. For external use only. |
| 1.3 | Details of the Supplier of the Safety Data Sheet | | |
| | Manufacturer/ Supplier | : | Schulke India Private Limited
A-24/10, Mohan Co-operative
Industrial Estate, Mathura Road
New Delhi – 110044
Tel. No.: +91 11 4978 6666
Fax No.: +91 11 4978 6699
www.schuelke.com/in-en/ |
| 1.4 | E-mail address of person / responsible for the SDS/Contact person | : | customercare.india@schuelke.com |
| 1.5 | Emergency telephone number | : | + 91 11 4978 6666 |

Section 2:	HAZARDS IDENTIFICATION
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2.1 Classification of the substance or mixture

Not classified as hazardous according to UN GHS criteria.

2.2 Labeling

Globally Harmonized System, UN (GHS)

Pictogram



Signal Word

Warning

Hazard Statements

H303: May be harmful if swallowed
H333: May be harmful if inhaled
H315: Cause skin irritation
H319: Cause eye irritation
H335: May cause respiratory irritation

Precautionary Statements

P271: Use only outdoors or in a well-ventilated area
P261: Avoid breathing mist/vapours/spray
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P304+P312: IF inhaled: Call a poison center/doctor/physician/first aider/if you feel unwell.
P337+P313: If eye irritation persists: Get medical advice/attention.

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P304+P340: If inhaled: Remove person to fresh air and keep comfortable for breathing
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P403+P233: Store in a well-ventilated place. Keep container tightly closed.
 P501: Dispose of contents/container in accordance with local regulations.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Sr. No	Chemical name	CAS NO.	Composition
1	Povidone Iodine IP	25655-41-8	5 to 12 %
2	Water	7732-18-5	Q.S

Section 5: FIRST-AID MEASURES

Inhalation:

In case of irritation of the respiratory system or mucous membranes, seek medical attention. Move to fresh air. Seek medical attention if you feel unwell or if exposure prolonged.

Skin contact:

Remove contaminated clothing. Wash affected skin with soap and plenty of water. If skin irritation or dermatitis commences or persists seek medical attention.

Eye contact:

Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do – continue rinsing. Seek medical attention.

Ingestion:

In case of spontaneous vomiting be sure that vomitus can freely drain due to danger of suffocation. Rinse mouth and then drink plenty of water. Induce vomiting (only first-aid staff) if person is conscious. Seek medical attention. Check breathing and pulse. Place victim in the recovery position, cover and keep warm. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical attention.

Advice for the doctor:

Symptomatic treatment

Section 5: FIRE-FIGHTING MEASURES

Fire extinguishing agents:

Water spray, Foam, Carbon dioxide (CO₂), Dry powder.

Fire/explosion hazard:

Please refer to section 9.

Specific hazards arising from the chemical:

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At high temperature flammable gases are released (Please refer to section 9).

Personal protection:

Self-contained breathing apparatus.

Special exposure hazards:

Do not release chemically contaminated water into drains, soil or surface water. Sufficient measures must be taken to retain the water used for extinguishing. Dispose of contaminated water and soil according to local regulations.

Section 6:	ACCIDENTAL RELEASE MEASURES
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Personal protection:

Goggles, gloves, protective clothing, respiratory protection.
Remove ignition sources and provide sufficient ventilation.

Environmental precautions:

Prevent contamination of soil, drains and surface waters.

Spillage procedure

Take up mechanically and collect in suitable container (adequately labelled) for disposal.

Section 7:	HANDLING AND STORAGE
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Handling

Occupational hygiene:

Avoid ingestion, inhalation, skin and eye contact. Handle in accordance with good industrial hygiene practice and any legal requirements.

Storage:

Handling- Avoid inhalation. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure.

Fire precautions:

Avoid ignition sources. Ensure good local exhaust ventilation.

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

Ground/bond container and receiving equipment.

Storage facilities:

Store in a cool, dry area with adequate ventilation. Keep tightly closed.

Segregation:

Store locked up.

Storage conditions:

Store below 25°C and protect from direct sunlight.

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Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure limit values:

Components with occupational exposure limits:

CAS No	Name	TWA	STEL	Source
25655-41-8	Povidone-iodine	-	-	-

Occupational exposure controls:

Appropriate engineering controls:

Maintain air concentrations below occupational exposure standards.

General Personal Protection:

Goggles, gloves, protective clothing

Respiratory protection:

Breathing apparatus with filter required if occupational exposure limits may be exceeded

Hand protection:

Protective gloves

Eye protection:

Goggles

Skin and body protection:

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Clear, Dark brown liquid
Form	:	Liquid
Colour	:	Dark brown
Odour	:	Characteristic fragrance
pH	:	4 to 6
Melting point	:	Not tested
Boiling point	:	Not tested
Flash point	:	> 98°C
Vapour pressure	:	Not tested
Auto-ignition temperature	:	Not tested
Decomposition temperature	:	Not tested

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Density	:	Not tested
Solubility in water	:	Highly Soluble
Solubility in solvents	:	Not tested
n-Octanol/Water Partition Coefficient	:	Not tested
Viscosity	:	Not tested
Oxidizing properties	:	not expected on structural indication

Section 10: STABILITY AND REACTIVITY

Conditions to avoid:

Avoid extreme conditions. Keep away from heat/sparks/open flames/hot surfaces. See information on section 9.

Materials to avoid:

Oxidizing and reducing agents

Hazardous decomposition products:

None under normal storage conditions

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Microshield® PVP Solution was not tested for acute toxicity, hence the classification of Povidone Iodine is considered for the classification.

Virtually non-toxic.

Oral: LD₅₀ Rat: 4640 mg/kg

GHS Classification is not possible.

Primary Irritation

Microshield® PVP Solution is not tested for irritation, hence the classification of Povidone Iodine is considered for the classification

- Skin: H315: Causes skin irritation [Warning Skin corrosion/irritation
- Eye: H319 (12.35%): Causes serious eye irritation

Based on data the classification of Microshield® PVP Solution for Skin irritation & Eye damage. But looking of the usage of the formulation, probability of eye damage is very low hence we are not considering that hazard, hence not included in classification.

Respiratory or Skin sensitization

- Respiratory: Not tested

GHS Classification is not possible.

CMR consideration:

Microshield® PVP Solution was not tested for Genotoxicity.

Germ cell mutagenicity:

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- Mutagenicity (in-vitro, Ames test and E. coli assay):
- Mutagenicity (in-vitro, Gene mutation assay in mouse lymphoma cells):
- Mutagenicity (in-vitro, Chromosomal aberration test):
- Mutagenicity (in-vivo, Micronucleus assay in mouse):

GHS Classification is not possible.**Carcinogenicity:**

Microshield® PVP Solution was not tested for Carcinogenicity
GHS Classification is not possible.

Reproductive toxicity:

Microshield® PVP Solution was not tested for Reproductive toxicity
GHS Classification is not possible

Specific target organ toxicity single exposure:

Microshield® PVP Solution was not tested for STOT SE.
GHS Classification is not possible.

Specific target organ toxicity repeated exposure:

Microshield® PVP Solution was not tested for STOT RE
In absence of specific study data and as **Microshield® PVP Solution** is diluted with water hence
GHS classification not possible.

Aspiration hazard:

Microshield® PVP Solution was not tested for Aspiration Hazard
GHS Classification is not possible

Additional information:**Section 12: ECOLOGICAL INFORMATION****Eco toxicity**

Acute aquatic toxicity of Microshield® PVP Solution was not tested. But the classification of Povidone Iodine is considered for the classification of the formulation

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low Concentrations.

Toxicity to fish

LC50 (96 h) > 4.6 - 10 mg/l, Leuciscus idus (DIN 38412 Part 15, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates

EC50 (48 h) 2.79 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

The details of the toxic effect relate to the nominal concentration.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN 38412 Part 8 aerobic

bacterium/EC10 (17 h): 270 mg/l

The details of the toxic effect relate to the nominal concentration

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

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Not readily biodegradable (by OECD criteria). Poorly biodegradable. Poorly eliminated from water.

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Elimination information

< 20 % DOC reduction (3 h) (OECD Guideline 302 B) (aerobic, activated sludge, domestic, adapted)

< 10 % (28 d) (ISO 14593) (aerobic, activated sludge, domestic)

< 10 % (28 d) (ISO 14593) (aerobic, activated sludge, domestic)

Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested.

Section 13: DISPOSAL CONSIDERATIONS

Product disposal:

Observe specific national regulation

Contaminated packaging:

Contaminated, empty containers must be disposed of as chemical waste management.

Dispose of contents/ container in accordance with the local/regional/national/international regulations

Section 14: TRANSPORT INFORMATION

The substance/Mixture is not considered as dangerous good according to transport regulations

Land transport (ADG) : Not Regulated for Transport of Dangerous goods

Air transport (ICAO-IATA / DGR) : Not Regulated for Transport of Dangerous goods

Sea transport (IMDG-Code) : Not Regulated for Transport of Dangerous goods

Section 15: REGULATORY INFORMATION

CLASSIFICATION AND LABELLING:

Compliance with following regulations:

- According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS),
Third Revised Edition UNITED NATIONS New York and Geneva, 2017
- UN Recommendations on the Transport of Dangerous Goods, UNECE 2009

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National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Recommended restrictions on use:

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

MSDS Changes

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