

Material Safety Data Sheet (MSDS)

P100, P100d, S100, S100d & X100

Hydrophilic coatings

Document date July 28, 2016

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

1.1 Product identifier

Product name: P100, P100d, S100, S100d & X100 Hydrophilic coating
Product use: Coating to make surfaces hydrophilic

Description: A liquid solution that when applied to a surface leaves a coating that makes most materials hydrophilic.

The products are for professional use only

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

Identified uses: Coating of surfaces to make them hydrophilic
Uses advised against: Coating of surfaces in constant contact with rain or condensing conditions.

1.3 Details of the supplier of the safety data sheet

Manufacturers name: Jonsman Innovation ApS
Hovedvejen 1d
3330 Gørløse
Denmark
Phone: (+45) 40624345
E-mail: info@joninn.com
Web: www.joninn.com

1.4 Emergency telephone number

In case of a medical emergency you should call your local authorities. If these are not available you can call the Danish 24 hour advisory hot line:

Giftlinjen
Bispebjerg Hospital
Bispebjerg Bakke 23
2400 København NV
Telephone: (+45) 82121212

Manufacturers telephone number: (+45) 40624345

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Directive EC nr. 1272/2008 [CLP]

H Phrases: H226 Flammable liquid and vapour
H316 Causes serious eye irritation
H336 May cause drowsiness or dizziness

P Phrases: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
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.

2.2 Label elements

Hazard symbol or symbols:



Indication of danger: Flammable, Irritant

Contains: Diluted Propan-2-ol

2.3 Other hazards

Other hazards which do not result in classification: Not applicable

SECTION 3: Composition/information on ingredients

3.2 Mixtures

A mixture of 40-49% Isopropanol, water and 1% non-hazardous solids.

Hazardous ingredient:

Ingredient name: Propan-2-ol
Identifiers: CAS: 67-63-0
EU: 200-661-7
Index: 603-117-00-0
CLP Classification: H226 Flammable liquid and vapour
H316 Causes serious eye irritation
H336 May cause drowsiness or dizziness

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Get medical attention if adverse health effects persist or are severe.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an

unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Inhalation: Vapors may cause drowsiness and dizziness.
Ingestion: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Eye contact: Irritating to eyes.

Over-exposure signs/symptoms

Inhalation: Adverse symptoms may include the following:

- Nausea or vomiting
- Headache
- Drowsiness/fatigue
- Dizziness/vertigo

Eye contact: Adverse symptoms may include the following:

- Irritation
- Watering
- Redness

Skin contact: No specific data.

Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically. Contact a poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguishing media

Small fires: Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

Large fires: Dry powder, foam or water spray/mist.

Unsuitable extinguishing media

Do not use water jet as this can spread the fire. Do not use carbon dioxide in enclosed spaces with insufficient ventilation.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide (CO). Carbon dioxide (CO₂).

Unusual Fire & Explosion Hazards

Vapors are heavier than air and may spread near ground to sources of ignition. Vapours may form explosive mixture with air at room temperature. Sealed containers of the product or other flammable liquids in the near vicinity of the fire can explode due to pressure build up.

Specific hazards

In case of fire, toxic gases or vapors may be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Containers close to the fire area should be cooled with water if safe to do so. Be aware that any flammable substance containers are liable to explode when heated. Prevent run-off from entering drains and watercourses. Be aware of dangers from other hazardous substances in the immediate area.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Isolate all sources of ignition. Use protective clothing and equipment as described in section 8 of this datasheet. Provide adequate ventilation. Avoid ingestion, inhalation of vapours and contact with skin and eyes. Restrict access to the area until the spillage is treated, if large amounts of vapors are produced that will be hazardous to others, evacuate the area. Use suitable respiratory equipment if spillages occur in enclosed spaces and vapors are produced. Have emergency procedures in place for treating spillages, evacuating the area and informing the emergency services if necessary. When any other effects of spillages will affect the safety of others the area should be evacuated. Restrict access to the area until the spillage is treated and it is safe to return.

6.2. Environmental precautions

Avoid unauthorised discharge to the environment. Do not discharge into drains, water courses or onto the ground. Clean up any spillages immediately, prevent material from spreading and entering drains or sewage systems. If spillages to land cannot be treated safely or if contamination will occur the Environment Agency must be alerted immediately. Large spillages or uncontrolled discharge to water systems must be alerted to the Environmental Agency or other regulatory body. If the substance has entered a foul drain or sewage system in significant quantity to cause a hazard the local Water Treatment Company must be informed.

6.3. Methods and material for containment and cleaning up

Isolate all ignition sources. Avoid heat, flames, sparks and static discharge. NO SMOKING. Small Spillages: Absorb with inert, non-combustible material. Large Spillages: Dam and absorb spillages with sand, earth or other inert, non-combustible material. Fit drain covers where they are available if the spillage is likely to enter the drainage system. Ventilate well. Any extraction systems used to ventilate the area must be flameproof. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Ensure there are no ignition or heat sources in the waste storage area. Wash spillage site well with water and detergent, be aware of the potential for surfaces to become slippery. Wash thoroughly after dealing with a spillage. After spillages in enclosed areas test atmosphere before using any potential ignition sources. Ventilate area and allow to dry before allowing access.

6.4. Reference to other sections

Refer to sections 8 and 13 for additional information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Static electricity and formation of sparks must be prevented. Ensure sufficient earthing is in place during use. Eliminate all sources of ignition. Avoid spilling, skin and eye contact. Avoid inhalation of vapors and spray mists. Do not mix with incompatible substances or mixtures. Do not eat, drink or smoke when handling. Do not dispose of the substance to the environment through unauthorized means. Do not discharge to land or water including the drainage system. Do not use in areas close to drainage systems unless measures are in place to prevent access of product. Do not use in confined spaces without adequate ventilation and/or respirator. Use flame proof fume extraction systems to remove vapours away from the work area. Wash at the end of each work shift and before using the toilet. Remove contaminated clothing/footwear/equipment before entering eating areas or other places that would expose others to the substance. Ensure emergency procedures are in place to treat spillages and cope with other situations such as evacuation.

7.2. Conditions for safe storage, including any incompatibilities

Avoid all ignition sources. Ensure sufficient earthing is in place to eliminate static charge accumulation. Store in area with adequate ventilation and sufficient air movement to prevent any build up of vapors. Store in closed original container at temperatures between 15°C and 25°C. Store away from heat, direct sunlight and moisture. Store away from oxidizing agents. Store away from incompatible materials. Keep above the chemical's freezing point. Store in a stable situation to avoid spillages. It is advisable to store in a bunded area or use other protective measures such as a sump pallet or storage tray. If the substance is transferred to other containers ensure the packaging material is compatible. Consult with the packaging manufacturer or supplier. Do not leave storage containers exposed to the atmosphere as this will result in evaporation of contents.

Storage Class: Flammable liquid storage.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure control/personal protection

8.1. Control parameters

Workplace exposure limit (WEL) 400 ppm ~1000 mg/m³.

8.2. Exposure controls

Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined workplace exposure limit (WEL) is not exceeded. Explosion-proof general and local exhaust ventilation. If vapors or mists are generated, work in a fume cupboard.

Respiratory equipment

Wear suitable respiratory protection when vapors or mists are produced if the workplace Exposure Limit is exceeded and there is insufficient ventilation or extraction. Use a chemical respirator with organic vapor cartridge as per OSHA Respiratory Protection Standard (29 CFR 1910.134), or any supplied-air respirator.

Hand protection

Wear nitrile protective gloves.

Eye protection

Wear approved chemical safety goggles.

Other Protection

Wear suitable protective clothing during transport, handling and storage operations connected with the product. Have facilities in place to wash eyes in case of contact. If handling large amounts it is recommended to have a safety shower. Wear anti-static footwear.

Hygiene measures

Remove clothing when contamination will result in exposure to the substance, segregate and wash before re-use. Do not eat, drink or smoke in the work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing when entering eating areas or other places that could lead to contamination of others with the product.

SECTION 9: Physical and chemical properties

Appearance: Clear, pale yellow liquid.

Specific Gravity: 0.90 g/ml

% Volatiles by volume @ 21°C: 99

Boiling Point: 94°C

Vapor Density (Air=1): 2.1

Vapor Pressure (mm Hg): 44 @ 25°C

SECTION 10: Stability and reactivity

Stability:

Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability.

Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Heat, flame, strong oxidizers, acetaldehyde, acids, chlorine, ethylene oxide, hydrogen-palladium combination, hydrogen peroxide-sulfuric acid combination, potassium tert-butoxide, hypochlorous acid, isocyanates, nitroform, phosgene, aluminium, oleum and perchloric acid.

Conditions to Avoid:

Heat, flames, ignition sources and incompatibles.

SECTION 11: Toxicological information

The information listed below is for pure Isopropanol (Propan-2-ol, CAS# 67-63-0) which is only a part of this product.

Draize test, rabbit, eye: 100 mg Severe;

Draize test, rabbit, eye: 10 mg Moderate;

Draize test, rabbit, eye: 100 mg/24H Moderate;

Draize test, rabbit, skin: 500 mg Mild;

Inhalation, rat: LC50 = 16000 ppm/8H;

Oral, mouse: LD50 = 3600 mg/kg;

Oral, rabbit: LD50 = 6410 mg/kg;

Oral, rat: LD50 = 5045 mg/kg;
Skin, rabbit: LD50 = 12800 mg/kg;<br.

Carcinogenicity:

IARC: Group 3 carcinogen

Epidemiology: Experimental teratogenic and reproductive effects have been reported for isopropanol. Early epidemiological studies have suggested an association between the strong acid manufacture of isopropyl alcohol and paranasal sinus cancer in workers.

Teratogenicity: A rat & rabbit developmental toxicity study showed no teratogenic effects at doses that were clearly maternally toxic. In a separate rat study, no evidence of developmental neurotoxicity was associated with gestational exposures to IPA up to 1200 mg/kg/d.

Reproductive Effects: See actual entry in RTECS for complete information.

Neurotoxicity: No information available.

Mutagenicity: See actual entry in RTECS for complete information.

Other Studies: Standard Draize Test: Administration onto the skin (rabbit) = 500 mg (Mild). Standard Draize Test: Administration into the eye (rabbit) = 100 mg (Moderate). Standard Draize Test : Administration into the eye = 10 mg (Moderate). Standard Draize test: Administration into the eye (rabbit) = 100 mg/24 H (Moderate).

SECTION 12: Ecological information

Environmental Fate:

When released into the soil;

- this material is expected to quickly evaporate.
- this material may leach into groundwater.
- this material may biodegrade to a moderate extent.

When released to water;

- this material is expected to quickly evaporate.
- this material is expected to have a half-life between 1 and 10 days.
- this material may biodegrade to a moderate extent.

When released into the air;

- this material is expected to be readily degraded.
- this material is expected to have a half-life between 1 and 10 days.
- this material may be removed from the atmosphere by precipitation.

Environmental Toxicity:

The LC50/96-hour values for fish are over 100 mg/l. This material is not expected to be toxic to aquatic life.

This material is not expected to significantly bioaccumulate.

SECTION 13: Disposal considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved incinerator or disposed in an approved waste facility. Processing, use or contamination of this product may change the waste management options. Local disposal regulations may differ from what is described in this document, always follow local law and regulations. Dispose of container and unused contents in accordance with local requirements.

SECTION 14: Transport information

IATA:

Proper shipping name: Diluted Isopropyl alcohol solution

UN number: UN1219

Proper shipping name: Diluted Isopropyl alcohol solution

Class: 3

Packing group: 2

SECTION 15: Regulatory information

Not regulated.

SECTION 16: Other information

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