


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

1.1. Product identifier			
Product name	MIRAPAKON MK100		
Product code	MK100		
EC number	Not available		
CAS number	Not available		
REACH	A registration number is not available for this substance or its uses are exempted from registration, the annual tonnage does not require a registration or a registration is envisaged for a later registration deadline.		
Product description	Coating		
1.2. Relevant identified uses of the substance or mixture and uses advised against			
Identified uses:	Foul-release coating		
1.3. Details of the supplier of the safety data sheet			
Mirapakon Coatings Inc.	2500, Parc-Technologique Blvd Quebec City, QC Canada, G1P 4S6	Tel: 418-874-0054 Fax: 418-874-0355	info@mirapakon.com www.mirapakon.com
1.4. Emergency telephone number			
National advisory body/poison center	CANUTEC: +1-613-996-6666 or *666 (cellular)		
Telephone number	24 hours/day, 7 days/week		
Hours of operation			

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture	
Classification according to regulation (EC) No. 1272/2008 [CLP/GHS]:	
Flammable liquid	(Category 2), H225
Eye Irritation	(Category 2), H319
Specific target organ toxicity-single exposure, Central nervous system	(Category 3), H336
Classification according to EU Directives 67/548/EEC or 1999/45/EC	
F Highly flammable	R11
Xi Irritant	R36, R67
2.2. Label elements	
Labelling according Regulation (EC) No 1272/2008	
Pictogram	
Signal word	Danger
Hazard statements	
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
Precautionary statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P261	Avoid breathing vapours
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses. Continue rinsing
P310	Immediately call a POISON CENTER or doctor/ physician
P501	Dispose of contents/ container to an approved waste disposal plant
According to European Directive 67/548/EEC as amended	
R11	Highly flammable
R36/R67	Irritant / Vapours may cause drowsiness and dizziness.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves, and eye/face protection.
S45	In case of accident or if you feel unwell, seek medical advice immediately
2.3. Other hazards	
Other hazards which do not result in classification: none	

SECTION 3: Composition/information on ingredients

Substance/mixture: mixture

Product/ingredient name	Identifiers CAS (EC)	%	Directive 1999/45/EC	Regulation (EC) No. 1272/2008 [CLP]	Type
Colloidal silica	ND	5-45	ND	ND	[A]
Orthosilicic acid esters	Proprietary information	10-90	R36/37/38 - S26/36	H315,H319,H335 – P261,P305+P351	[A]
Isopropanol	67-63-0	10-60	F, Xi, R11-R36-R67	Flam.Liq.2; Eye Irrit.2; STOTSE 3; H225,H319,H336	[A]
Surfactant	Proprietary information	0-1	ND	ND	[C]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

Type : [A] Constituent [B] Impurity [C] Stabilising additive

SECTION 4: First aid measures

4.1 Description of first aid measures	
Eye contact	Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if necessary
Skin contact	In case of contact, immediately flush skin with plenty of water for at least 20 minutes
Inhalation	Move exposed person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Wash out mouth with water. Don't induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
4.2 Indication of any immediate medical attention and special treatment needed	
Notes to physician	Treat symptomatically. Contact 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	
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Unsuitable extinguishing media	None known
5.2 Special hazards arising from the substance or mixture	
Hazard from the substances or mixture	Carbon oxides
Hazardous combustion products	No specific data
5.3 Advice for firefighters	
Special protective equipment for fire-fighters	Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode. Clothing for fire fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment
For emergency responders	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For Non-emergency personnel".
6.2 Environmental precautions	
Avoid dispersal of spilt material and runoff and contact with soil, waterways, drain and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).	
6.3 Methods and materials for containment and cleaning up	
Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, watercourses, basements and confined areas. Vacuum or sweep up materials and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
6.4 Reference to other sections	
See Section 1 for emergency contact information.	
See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.	

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of identified uses in section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling	
Protective measures	Avoid contact with skin and eyes. (see Section 8). Avoid inhalation of vapour or mist.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities	
Store in accordance with local regulations. Store in original container in cool place, dry and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination	
7.3 Specific end use(s)	
Recommendations	Not available

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of identified uses in section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters	
Exposure limit values	No exposure limit value known. Components with workplace control parameters
8.2 Exposure controls	
Appropriate engineering controls	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits
Individual protection measures	
Hygiene measures	Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
Eye/face protection	Safety eyewear should be used when there is a likelihood of exposure. Recommended: If operating conditions cause high dust concentrations to be produced, use dust goggles.
Skin protection	
Hand protection	Use gloves appropriate for work or task being performed. Recommended: Natural rubber (latex).
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Lab coat.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Ensure an MSHA/NIOSH-approved respirator or equivalent is used
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
Physical state	Liquid
Melting point/freezing point	-89°C
Initial boiling point and boiling range	82°C
Flash point	19.0°C – closed cup
Evaporation rate	3.0
Flammability	No data available
Vapour pressure	43,2 hPa at 20°C
Vapour density	No data available
Relative density	No data available
Solubility(ies)	No data available
9.2 Other safety information	
No specific data available	

SECTION 10: Stability and reactivity

10.1 Reactivity	Reacts with water
10.2 Chemical stability	The product is stable under recommended storage conditions
10.3 Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur
10.4 Conditions to avoid	Water
10.5 Incompatible materials	Strong acid
10.6. Hazardous decomposition products	Carbon monoxide, Carbon dioxide, Silicon oxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects	
Information on the likely routes of exposure	Routes of entry anticipated: Oral, Dermal and Inhalation.
Potential acute health effects	
Inhalation	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Ingestion	Harmful if swallowed.
Skin contact	Mild skin irritation
Eye contact	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Symptoms related to the physical, chemical and toxicological characteristics	
Inhalation	May cause drowsiness or dizziness
Ingestion	No known significant effects or critical hazards
Skin contact	Adverse symptoms may include the following: irritation
Eye contact	Adverse symptoms may include the following: irritation
Delayed and immediate effects and also chronic effects from short and long term exposure Short term exposure	
Potential immediate effects	Not available.
Potential delayed effects	Not available.
Long term exposure	
Potential immediate effects	Not available.
Potential delayed effects	Not available.
General: Carcinogenicity	This product is or contains a component that is not classifiable as to its carcinogenicity based on its OARC, ACGIH,NTP, or EPA classification.
Mutagenicity: Teratogenicity	No known significant effects or critical hazards
Developmental effects	No known significant effects or critical hazards
Fertility effects	No known significant effects or critical hazards
Other information	No known significant effects or critical hazards

SECTION 12: Ecological information

12.1. Toxicity	To Fish – LC50- Pimephales promelas 9 640,00 mg/l - 96h To daphnia and other aquatic invertebrates – EC50- Daphnia magna (Water flea) – 5 102,00 mg/l - 24h To algae EC50 – Desmodesmus subspicatus (green algae) > 2 000,00 mg/l - 72h
12.2 Persistence and degradability	Not available
12.3 Bio accumulative potential	No bioaccumulation is to be expected
12.4 Mobility in soil	
Soil/water partition coefficient (KOC)	Not available
Mobility	Not available
12.5 Results of PBT and vPvB assessment	
PBT	This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic.
vPvB	This substance/mixture contains no components considered to be very persistent and vary bio accumulative at levels of 0,1% or higher.
12.6 Other adverse effects	No data available

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of identified uses in section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods	
Product	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste products residue should not be disposed of via the foul sewer, but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
Hazardous waste	Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU directive 91/689/EEC
Packaging	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste when packaging should be recycled. Incineration or landfill should only be considered. Recycling is not feasible.
Special precautions	This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waters, drains and sewers

SECTION 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	1263	1263	1263	1263
14.2 UN proper shipping name	Paint	Paint	Paint	Paint
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user	Not available.	Not available.	Not available.	Not available.
Additional information	-	-	-	-

PG* : Packing group; Exemption to the above classification may apply.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorisation Substances of very high concern	No data available
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not applicable
Other EU regulations	
Europe inventory	Not determined.
Black List Chemicals	Not listed
Priority List Chemicals	Not listed
Integrated pollution prevention and control list (IPPC) – Air	Not listed
Integrated pollution prevention and control list (IPPC) - Water	Not listed
15.2 Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Abbreviations and acronyms:

ATE = Acute Toxicity Estimate

CLP= Classification, Labelling and Packaging regulation (Regulation <EC> No. 1272/2008

DNEL= Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PNEC = Predicted No Effect Concentration

RRN = Reach Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	
Full text of abbreviated H statements Eye Irrit. ; Flam. Liq. H225;H319;H336;STOT SE	Eye irritation; Flammable liquids Highly flammable liquid and vapour; Causes serious eye irritation; May cause drowsiness or dizziness; Specific target organ toxicity
Full text of classifications CLP/GHS F;Xi;R11;R36;R67	Highly flammable, Irritant; Highly flammable; Irritating to eyes; Vapour may cause drowsiness and dizziness.
History Date of issue (dd/mm/yyyy) Version	16/01/2017 1.1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.