

SAFETY DATA SHEET

Issuing date 06-Jun-2015

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 002304
Product name 002304

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

Recommended use Printing ink
Uses advised against No information available

Details of the supplier of the safety data sheet

Company

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Emergency telephone number

Markem-Imaje S.A.S.: (33) 4 75 75 55 00
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Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture *REGULATION (EC) No 1272/2008*

Acute oral toxicity	Category 4 - (H302)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity - single exposure	Category 3 - (H336)
Flammable liquids	Category 2 - (H225)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
For the full text of the R-phrases mentioned in this Section, see Section 16

Section 2: HAZARDS IDENTIFICATION

Symbol(s)

Xi - Irritant
F - Highly flammable

R-code(s)

F;R11 - Xi;R41 - R67

Label elements**Product identifier****Signal word**

Danger

hazard statements

H302 - Harmful if swallowed
H318 - Causes serious eye damage
H336 - May cause drowsiness or dizziness
H225 - Highly flammable liquid and vapour

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapours/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/./? /equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool

Skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

EYES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTRE or doctor/physician

FIRE

In case of fire: Use CO₂, dry chemical, or foam for extinction

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTRE or doctor/physician if you feel unwell

INGESTION

IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Other hazards

May be harmful in contact with skin

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation

Preparation.

Chemical Name	EC-No	CAS-No	Weight %	Classification	GHS Classification
n-Propyl alcohol	200-746-9	71-23-8	90 - 100	F; R11 Xi; R41 R67	Eye Dam. 1 (H318) STOT SE 3 (H336) Flam. Liq. 2 (H225)

For the full text of the R-phrases mentioned in this Section, see Section 16

Section 4: FIRST AID MEASURES

Description of first aid measures

General advice	Call 211 or emergency medical service. Remove and isolate contaminated clothing and shoes.
Inhalation	Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
Skin contact	Wash skin with soap and water.
Eye contact	In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
Ingestion	Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.
Protection of first-aiders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects No information available

Indication of any immediate medical attention and special treatment needed

Notes to physician Keep victim warm and quiet. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Section 5: FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Dry chemical, CO₂, water spray or alcohol-resistant foam. Water spray, fog or alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons

CAUTION: All these products have a very low flash point Do not use dry chemical extinguishers to control fires involving nitromethane or nitroethane Do not use straight streams

Special hazards arising from the substance or mixture

Vapors may form explosive mixtures with air Vapors may travel to source of ignition and flash back Most vapours are heavier than air Vapor explosion hazard indoors, outdoors or in sewers Those substances designated with a "P" may polymerize explosively when heated or involved in a fire Runoff to sewer may create fire or explosion hazard

Advice for fire-fighters

Protective equipment and precautions for firefighters

Move containers from fire area if you can do it without risk.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk.

Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Environmental precautions

SEE PART A & PART B MSDS'S FOR HAZARD WARNING & OTHER INFORMATION. Beware of vapours accumulating to form explosive concentrations.

Methods and material for containment and cleaning up

Methods for containment

A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Methods for cleaning up

Use clean non-sparking tools to collect absorbed material.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Handling

Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

Hygiene measures

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

Conditions for safe storage, including any incompatibilities

Storage

Keep tightly closed in a dry and cool place. Keep in properly labelled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat and sources of ignition. Keep away from heat. Protect from light.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	EU	The United Kingdom	France	Spain	Germany
n-Propyl alcohol 71-23-8		TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 625 mg/m ³ Sk*	TWA: 200 ppm TWA: 500 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 400 ppm STEL: 1000 mg/m ³ via dérmica*	-

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
n-Propyl alcohol 71-23-8	-	TWA: 200 ppm STEL: 400 ppm	-	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 620 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ H*

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
n-Propyl alcohol 71-23-8	TWA: 200 ppm TWA: 500 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ H*	STEL: 600 mg/m ³ TWA: 200 mg/m ³	TWA: 100 ppm TWA: 245 mg/m ³ STEL: 150 ppm STEL: 306.25 mg/m ³ H*	TWA: 100 ppm STEL: 300 ppm Sk*

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

Exposure controls

Engineering measures Ensure adequate ventilation. Use explosion-proof equipment.

Personal protective equipment

Eye/face protection

tightly fitting safety goggles. face-shield.

Hand protection

Wear protective gloves. impervious butyl rubber gloves.

Skin and body protection

antistatic boots. Wear fire/flame resistant/retardant clothing. impervious gloves. long sleeved clothing. Chemical resistant apron. apron.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Environmental exposure controls Do not allow material to contaminate ground water system.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Colour	blue
Odour	Alcohol		
Odour Threshold	No information available		
Property	Values	pH	No information available
Melting/freezing point	<-125°C / <-193°F	Boiling point/range	>95°C / >203°F
Flash point	>15°C / >59°F		
Flammability Limits in Air			
lower flammability limit	2.1		
upper flammability limit	13.5	Solubility in other solvents	No information available
Autoignition temperature	>350°C / >662°F	Decomposition temperature	No information available
Kinematic viscosity	No information available	Dynamic viscosity	No information available
Oxidizing properties	No information available		

OTHER INFORMATION

Vapour pressure	2.7 kPa (25 °C)
Relative vapour density	>1
Density	0.815 (20 °C)
Water solubility	partly soluble

Section 9: PHYSICAL AND CHEMICAL PROPERTIESPartition coefficient: n-octanol/water $\log P(o/w) = 0.25$ **Section 10: STABILITY AND REACTIVITY****Reactivity**

no data available

Chemical stability

Stable.

Explosion Data

Sensitivity to Mechanical Impact none

Sensitivity to Static Discharge yes.

Possibility of hazardous reactions**Hazardous polymerisation**

no.

Hazardous reactions

strong oxidizing agents.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Incompatible with oxidizing agents. Incompatible with strong acids and bases.

Hazardous decomposition products

none.

Section 11: TOXICOLOGICAL INFORMATION

The following values are calculated based on chapter 3.1 of the GHS document

1,943.00mg/kg

4,207.00mg/kg

Acute Toxicity***Inhalation***

May cause irritation of respiratory tract. May be harmful by inhalation . May be harmful by inhalation . May cause irritation of respiratory tract. May be harmful if inhaled.

Skin contact

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Eye contact

Irritating to eyes. May cause irreversible eye damage.

Ingestion

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May be harmful if swallowed. Ingestion may cause irritation to mucous membranes. May be harmful if swallowed.

Section 11: TOXICOLOGICAL INFORMATION

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
n-Propyl alcohol	= 1870 mg/kg (Rat)	= 4049 mg/kg (Rabbit)	> 13548 ppm (Rat) 4 h

Chronic toxicity

Inhalation of vapours in high concentration may cause irritation of respiratory system. Concentration above the admissible concentration at the workplace may cause dizziness, headache and inebriation. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Avoid repeated exposure.

Other information

Avoid exposure to women during early pregnancy.

Section 12: ECOLOGICAL INFORMATION

Chemical Name	CAS-No	log Pow	Toxicity to Algae	Toxicity to microorganisms	German Water Class (VwVwS) Annex 2
n-Propyl alcohol	71-23-8	0.34			176

Chemical Name	CAS-No	Daphnia Magna (Water Flea)	Toxicity to fish
n-Propyl alcohol	71-23-8	3339 - 3977: 48 h Daphnia magna mg/L EC50 Static 3642: 48 h Daphnia magna mg/L EC50	4480: 96 h Pimephales promelas mg/L LC50 flow-through

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues/Unused Products Dispose of in accordance with local regulations

Section 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN-No	UN1210
14.2. Proper shipping name	Printing ink
14.3. Hazard Class	3
14.4. Packing group	II
14.5. Marine pollutant	none.
EmS	F-E, S-D

ADR

14.1. UN-No	UN1210
14.2. Proper shipping name	Printing ink
14.3. Hazard Class	3
14.4. Packing group	II
Classification Code	F1

Section 14: TRANSPORT INFORMATION**IATA**

14.1. UN-No	UN1210
14.2. Proper shipping name	Printing ink
14.3. Hazard Class	3
14.4. Packing group	II

Section 15: REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture**

In accordance with Regulation (EC) No. 1272/2008

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Chemical Safety Assessment**Section 16: OTHER INFORMATION****Key or legend to abbreviations and acronyms****Full text of R-phrases referred to under sections 2 and 3**

R11 - Highly flammable
R41 - Risk of serious damage to eyes
R67 - Vapours may cause drowsiness and dizziness

Issuing date 06-Jun-2015

Reason for revision All

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

End of Safety Data Sheet