

SAFETY DATA SHEET

Issuing date 28-May-2015

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

Product identifier

Product Code 001501
Product name 001501

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

Markem-Imaje S.A.S.
9, rue Gaspard Monge - BP 110
26501 Bourg-lès-Valence cedex
France

e-mail: sds@markem-imaje.com
Tel: (33) 4 75 75 55 00
Fax: (33) 4 75 82 98 10

MARKEM-IMAJE GMBH
Schockenriedstr. 8 C
70565 Stuttgart
Phone: +49 711 78403-0
Fax: +49 711 78403-35

Emergency Telephone Numbers:
Markem-Imaje S.A.S.: (33) 4 75 75 55 00
INRS* (Orfila): (33) 1 45 42 59 59

Emergency telephone number

Markem-Imaje S.A.S.: (33) 4 75 75 55 00
INRS (Orfila): (33) 1 45 42 59 59

Section 2: HAZARDS IDENTIFICATION

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

Serious eye damage/eye irritation	Category 1 - (H318)
Flammable liquids	Category 3 - (H226)

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

Symbol(s)

T+ - Very toxic

001501

R-code(s)

T+;R26 - Xi;R41

Label elements

Product identifier



Signal word

Danger

hazard statements

H318 - Causes serious eye damage

H226 - Flammable liquid and vapour

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection

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

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

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Other hazards

No information available

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	10 - 20	F; R11 Xi; R41 R67	Eye Dam. 1 (H318) STOT SE 3 (H336) Flam. Liq. 2 (H225)
Glycerin	200-289-5	56-81-5	5 - 10		No data available
Isopropyl alcohol	200-661-7	67-63-0	< 1	F; R11 Xi; R36 R67	Eye Irrit. 2 (H319) 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. Wear personal protective equipment. Use only in area provided with appropriate exhaust ventilation. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe vapours or spray mist. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing.

Hygiene measures

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

Conditions for safe storage, including any incompatibilities**Storage**

Keep container tightly closed. Keep out of the reach of children. 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. Keep in properly labelled containers.

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 vía dérmica*	-
Glycerin 56-81-5		TWA: 10 mg/m ³ STEL: 30 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 50 mg/m ³ Ceiling / Peak: 100 mg/m ³
Isopropyl alcohol 67-63-0		TWA: 400 ppm TWA: 999 mg/m ³ STEL: 500 ppm STEL: 1250 mg/m ³	STEL: 400 ppm STEL: 980 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 400 ppm STEL: 1000 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ Ceiling / Peak: 400 ppm Ceiling / Peak: 1000 mg/m ³

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*
Glycerin 56-81-5	-	TWA: 10 mg/m ³	-	TWA: 20 mg/m ³	

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
Isopropyl alcohol 67-63-0	-	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: 490 mg/m ³

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*
Glycerin 56-81-5	-	TWA: 50 mg/m ³ STEL: 100 mg/m ³	TWA: 10 mg/m ³		TWA: 10 mg/m ³ STEL: 30 mg/m ³
Isopropyl alcohol 67-63-0	TWA: 200 ppm TWA: 500 mg/m ³ STEL 800 ppm STEL 2000 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 400 ppm STEL: 1000 mg/m ³	STEL: 1200 mg/m ³ TWA: 900 mg/m ³	TWA: 100 ppm TWA: 245 mg/m ³ STEL: 150 ppm STEL: 306.25 mg/m ³	TWA: 200 ppm STEL: 400 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

long sleeved clothing. Chemical resistant apron. antistatic boots. impervious gloves. 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	slight		
Odour Threshold	No information available		
Property	Values	pH	9.0 << 11.0
Melting/freezing point	<5°C / <41°F	Boiling point/range	>80°C / >176°F
Flash point	24°C / 75°F		
Flammability Limits in Air			
lower flammability limit	0.9	Solubility in other solvents	No information available
upper flammability limit	13.5	Decomposition temperature	No information available
Autoignition temperature	>350°C / >662°F	Dynamic viscosity	No information available
Kinematic viscosity	No information available		
Oxidizing properties	No information available		

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**OTHER INFORMATION**

Vapour pressure	2.3 kPa (20 °C)
Relative vapour density	>1
Density	1.005 (20 °C)
Water solubility	partly soluble
Partition coefficient: n-octanol/water	no data available

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

10,449.00mg/kg

20,352.00mg/kg

Acute Toxicity***Inhalation***

May cause irritation of respiratory tract. 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.

Section 11: TOXICOLOGICAL INFORMATION

Ingestion

Harmful if swallowed. Ingestion may cause irritation to mucous membranes. May be harmful if swallowed.

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
Glycerin	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	570 mg/m ³ (Rat) 1 h
Isopropyl alcohol	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h

Chemical Name	IARC	UK
Isopropyl alcohol	Group 1(as Isopropyl alcohol manufacture (strong-acid process)) Group 1 Group 3	

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.

Section 12: ECOLOGICAL INFORMATION

Biodegradation

Some ingredients of this material have some potential to biodegrade, but most ingredients have a limited potential to biodegrade or have not been tested.

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
Glycerin	56-81-5	-1.76			116
Isopropyl alcohol	67-63-0	0.05	1000: 72 h Desmodesmus subspicatus mg/L EC50 1000: 96 h Desmodesmus subspicatus mg/L EC50		135

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
Glycerin	56-81-5	500: 24 h Daphnia magna mg/L EC50	51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static
Isopropyl alcohol	67-63-0	13299: 48 h Daphnia magna mg/L EC50	11130: 96 h Pimephales promelas mg/L LC50 static 9640: 96 h Pimephales promelas mg/L LC50 flow-through 1400000: 96 h Lepomis macrochirus µg/L LC50

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	III
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	III
Classification Code	F1

IATA

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

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

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms

Full text of R-phrases referred to under sections 2 and 3

R26 - Very toxic by inhalation

R41 - Risk of serious damage to eyes

Issuing date 28-May-2015

Reason for revision All

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

End of Safety Data Sheet