	PIGAL s.p.a.	Revision nr. 6					
PIGAL SPA	-						
		Dated 5/5/2015					
	PULITORE PER GITANG - GITANG CLEANER	Printed on 03/03/2016					
		Page n. 1/14					
	Safety data sheet						
SECTION 1. Identification	of the substance/mixture and of the company/under	taking					
1.1. Product identifier Code:	F00018						
Product name	PULITORE PER GITANG - GITANG CLEANER						
1.2. Relevant identified uses of the	substance or mixture and uses advised against						
	er/adhesion promoter for PVC, solvent-based.						
1.3. Details of the supplier of the s	afety data sheet						
Name	PIGAL s.p.a.						
Full address District and Country	Via G. Rossa, 2 40053 VALSAMOGGIA - Crespellano (BO)						
	ITALIA						
	Tel. +39 051969068						
	Fax +39 051969353						
e-mail address of the competent pers	son						
responsible for the Safety Data Shee	t health.safety@pigal.it; pigalab@pigal.it						
1.4. Emergency telephone number							
For urgent inquiries refer to	+39 051969068 ore ufficio (8.30-13; 14-17.30) 118 (conta	ttare il centro antiveleni più					
	vicino)						
SECTION 2. Hazards iden	tification.						

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication: Flam. Liq. 2 H225 Carc. 2 H351 Eye Irrit. 2 H319 STOT SE 3 H336

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments. Danger Symbols:

F-Xn R phrases: 11-36-Carc. Cat. 3 40-66-67

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

2.2. Label elements.

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	F		TANG - GITANG CLEA	
		FULITURE PER GI	TANG - GITANG CLEA	Page n. 2/14
azard pictograms: Signal words: azard statements: H225 H351 H319 H336 EUH066 recautionary stateme	Danger Highly flam Suspected Causes se May cause Repeated of	mable liquid and vapour. l of causing cancer. erious eye irritation. e drowsiness or dizziness. exposure may cause skin dryne	equent amendments and supplements and supplements are supplemented at the supplement at the supplemented a	nts.
P201 P210 P233 P280 P304+P340 P308+P313 Contains:	Keep away Keep conta Wear prote IF INHALE IF exposed	d or concerned: Get medical adv	d face protection. nd keep at rest in a position comforta	able for breathing.
2.3. Other hazards.				
	le.			
nformation not availab			dianta	
	omposition/	information on ingred		
SECTION 3. Co		information on ingree		
3.1. Substances.		information on ingred		
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SECTION 3. Co 3.1. Substances. nformation not relevan 3.2. Mixtures. Contains: Identification. ACETONE		Conc. %.	Classification 67/548/EEC.	

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	PULITORE PER GI	Dated 5/5/2015 Printed on 03/03/2016 Page n. 3/14			
Reg. no. 01-2119471330-49 TETRAHYDROFURAN					
CAS. 109-99-9 EC. 203-726-8	9 - 10,5	Carc. Cat. 3 R40, R19, F R11, Xi R36/37		2 H225, Carc. 2 H351, Eye Irrit. 2 H319, 3 H335, EUH019	
INDEX. 603-025-00-0					
Reg. no. 01-2119444314-46					
METHYL ETHYL KETONE					
CAS. 78-93-3	8,5 - 10	R66, R67, F R11, Xi R36	Flam. Liq. H336, EU	2 H225, Eye Irrit. 2 H319, STOT SE 3 H066	
EC. 201-159-0			1000, 20		
INDEX. 606-002-00-3					
Reg. no. 01-2119457290-43					

Note: Upper limit is not included into the range.

The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet. T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = ExtremelyFlammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE



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If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

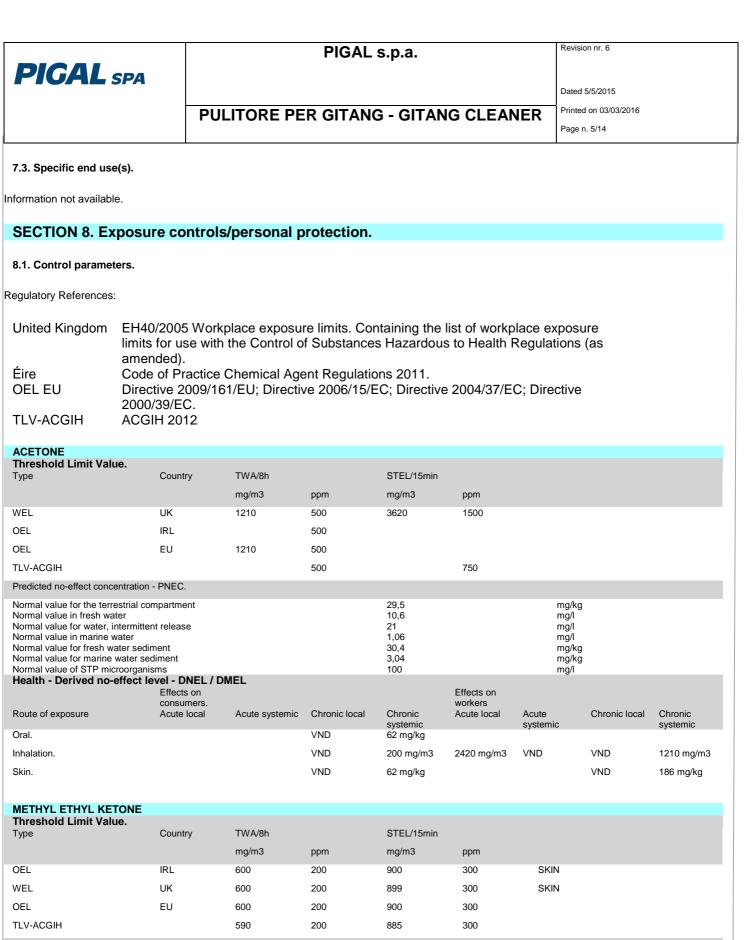
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.



1000

22.5

mg/kg

mg/kg

Predicted no-effect concentration - PNEC.

Normal value for the food chain (secondary poisoning) Normal value for the terrestrial compartment



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					UVV/U				577/U	

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374). The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.



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The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

ACETONE - Specific note about DPI

Recommended material for gloves: butyl and natural (latex). Butyl rubber, natural rubber (latex). For protection against splashes: PVC gloves.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

9.2. Other information.



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VOC (Directive 1999/13/EC) : VOC (volatile carbon) : 100,00 % - 807,76 g/litre. 62,85 % - 507,71 g/litre.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

The product can decompose and/or react violently.

TETRAHYDROFURAN: can form peroxides on contact with the air. For this reason the commercial product is stabilised with a reducing agent, for example ferrous sulphate or hydroquinone.

ACETONE: decomposes under the effect of heat.

BUTANONE: reacts with light metals like aluminium, and with strong oxidising agents; attacks various types of plastic. Decomposes under the effect of heat.

10.2. Chemical stability.

See previous paragraph.

10.3. Possibility of hazardous reactions.

See paragraph 10.1.

TETRAHYDROFURAN: reacts violently developing heat with: metal halogenates, thionile chloride, bromine. Produces heat and develops flammable gases with oxidising agents. Releases hydrogen with sodium aluminium hydride, calcium hydride and lithium aluminium hydride. Risk of explosion with: 2-aminophenol and potassium peroxide, alkaline hydroxides. Forms explosive mixtures with the air.

ACETONE: risk of explosion on contact with: bromine trifluoride, difluoro dioxide, hydrogen peroxide, nitrosyl chloride, 2-methyl-1,3 butadiene, nitromethane, nitrosyl perchlorate. Can react dangerously with: potassium tert-butoxide, alkaline hydroxides, bromine, bromoform, isoprene, sodium, sulphur dioxide, chromium trioxide, chromyl chloride, nitric acid, chloroform, peroxymonosulphuric acid, phosphoryl chloride, chromosulphuric acid, fluorine, strong oxidising agents. Develops flammable gases with nitrosyl perchlorate.

BUTANONE: may generate peroxides on contact with air, light or oxidising agents. Risk of explosion on contact with: hydrogen peroxide and sulphuric acid. It may react dangerously with: oxidising agents, trichloromethane, alkalis. Forms explosive mixtures with the air.

10.4. Conditions to avoid.

As the product decomposes even at ambient temperature, it must be stored and used at a controlled temperature. Avoid violent blows.

TETRAHYDROFURAN: avoid exposure to sources of heat and naked flames. ACETONE: avoid exposure to sources of heat and naked flames. BUTANONE: avoid exposure to sources of heat.

10.5. Incompatible materials.

ACETONE: acid and oxidising substances. BUTANONE: strong oxidising agents, inorganic acids, ammonia, copper and chloroform.

10.6. Hazardous decomposition products.

ACETONE: ketenes and other irritating compounds.

SECTION 11. Toxicological information.

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11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible carcinogenic effects. Anyway, currently available data do not allow us to comprehensively assess this product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.

Vapour inhalation may moderately irritate the upper respiratory trait. Contact with skin may cause slight irritation.

Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

This product contains highly volatile substances, which may cause serious depression of the central nervous system (CNS) and have negative effects, such as drowsiness, dizziness, slow reflexes, narcosis.

TETRAHYDROFURAN - Vapors may cause irritation to the eyes level, nose and throat and CNS depression (fatigue, dizziness, inability to concentrate or even loss of consciousness, coma and death in cases of severe overexposure).

High vapor concentrations may be irritating to the upper respiratory tract.

Carcinogenicity: high exposure to tetrahydrofuran throughout the lifetime induced liver tumors in female mice from non-genotoxic modes of action.At exposures that do not generate sustained liver injury, tumor development is unlikely. An increased incidence of kidney tumors in male rats was detected as a result of the mode of action irrelevant to the health of human beings.

ACETONE - Symptoms for exposure to the substance may include: irritates the respiratory tract; High doses nausea, headache, confusion, dizziness, stupor to coma with miosis areagente. Possible liver and kidney damage. Irritating, may cause corneal damage. Irritating, for prolonged contact dermatitis can be determined.

Oral Toxicity: The consumption of 50 ml is in the throat only a feeling scorching. Consummation of higher amounts leads to gastroenteritis and drugging with possible damage to the liver and kidney.

Inhalation toxicity: acetone vapors cause irritation and dizziness. The persistence in the environment in which the concentration amounted to 2,000 ppm because already the first symptoms of narcosis which is manifested by symptoms of drunkenness, severe intoxication due to inhalation irritation, drooling, redness of the face and loss of consciousness. Threatened by damage to the kidney and liver. Skin contact: Irritating to prolonged or repeated contact, may be determined dermatitis.

Eye Contact: Irritating, burning, can cause corneal damage. Normally you have transient irritation, severe damage to the cornea is described sporadically. Target organ systemic toxicity - single exposure: may cause drowsiness or dizziness.

Target organ systemic toxicity - repeated exposure: may cause irreversible damage to the central nervous system (solvent-induced neurotoxicity). Injury to the liver and kidneys may occur. The substance may cause effects on the blood and bone marrow.

Allergy (Guinea pig) - fails.

Germ cell mutagenicity - Genotoxicity in vitro tests did not show mutagenic effects.

Mutagenicity: Salmonella typhimurium - negative; Escherichia coli - negative.

Germ cell mutagenicity: fail.

Genotoxicity in vivo (mouse) - fails.

Carcinogenicity: animal experiments have shown the non-carcinogenic.

Reproductive toxicity: no effect on reproduction; no deterioration of the reproductive capacity of the animals.

TETRAHYDROFURAN LD50 (Oral). 1650 mg/kg Rat LD50 (Dermal). > 2000 mg/kg Rabbit LC50 (Inhalation). 14,7 mg/l/4h Rat

ACETONE

LD50 (Oral). 5800 mg/kg Rat LD50 (Dermal). 7400 mg/kg Rabbit LC50 (Inhalation). 21,09 mg/l/8h Rat

METHYL ETHYL KETONE LD50 (Oral). 2737 mg/kg Rat LD50 (Dermal). 6480 mg/kg Rabbit LC50 (Inhalation). > 5000 ppm/6h Rat

SECTION 12. Ecological information.



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Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. **12.1. Toxicity.**

TETRAHYDROFURAN

LC50 - for Fish. 2160 mg/l/96h Pimephales promelas - Metodo: OECD TG 203 EC50 - for Crustacea. 3485 mg/l/48h Daphnia magna (OECD TG 202) Chronic NOEC for Fish. 216 mg/l Pimephales promelas (33 d) Chronic NOEC for Algae / Aquatic Plants. 3700 mg/l Scenedesmus quadricauda (8 d) ACETONE

LC50 - for Fish. 5540 mg/l/96h Oncorincus mykiss, Salmo gairdneri EC50 - for Crustacea. 8800 mg/l/48h Daphnia pulex Chronic NOEC for Crustacea. 2212 mg/l Daphnia magna/28d Chronic NOEC for Algae / Aquatic Plants. 3400 mg/l Chlorella pyrenoidosa/48 h

METHYL ETHYL KETONE LC50 - for Fish. 2993 mg/l/96h Pimephales promelas EC50 - for Crustacea. 308 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

TETRAHYDROFURAN = 39 % (28 d), 61% (52 d), OECD TG 301 D. ACETONE - Biodegradability: 90%, 28 days. Easily degradable. Theoretical oxygen demand (ThOD): 84%, 5 days. Activated sludge: 100%, 4 days.

TETRAHYDROFURAN Entirely biodegradable.

ACETONE Rapidly biodegradable.

METHYL ETHYL KETONE Solubility in water. 250000 mg/l Rapidly biodegradable. **12.3. Bioaccumulative potential.**

ACETONE - Low concentration in aquatic organisms based on the BCF value. Methylethyl ketone - Slightly bioaccumulative.

TETRAHYDROFURAN Partition coefficient: n-octanol/water. 0,46 BCF. 3,16

ACETONE



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Partition coefficient: n-octanol/water. -0,24 -

BCF. 3

METHYL ETHYL KETONE Partition coefficient: n-octanol/water. 0,3 -

12.4. Mobility in soil.

TETRAHYDROFURAN - It is assumed that this material remains in the atmosphere if released. ACETONE - Media volatilization from water (Henry constant = $1.4 \text{ Pa} \cdot \text{m3}$ / mol at 20 ° C). Disperses by evaporation or dissolution within a day. Based on the defined value Koc (absorption coefficient of the ground) = 1, it is assumed very high mobility within the soil. Methylethyl ketone - It evaporates guickly.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%. **12.6. Other adverse effects.**

ACETONE - Significant risk of reduction in the oxygen content in the water. Water hazard class 1 (German Regulation, self-assessment): slightly hazardous.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations. These goods must be packed in their original packagings or in packagings made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.

Road and rail transport: ADR/RID Class:	3	UN:	1993
Packing Group:	П		
Label:	3		
Nr. Kemler:	33		
Limited Quantity.	1 L		
Tunnel restriction code.	(D/E)		
Proper Shipping Name:	FLAMMABLE L	LIQUID, N.O.S. (ACETONE; ME	THYL ETHYL KETONE)
Special Provision:	640C		

Carriage by sea (shipping):

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FLAMMABLE LIQUID, N.O.S. (ACETONE; METHYL ETHYL KETONE)

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Page n. 12/14 IMO Class: UN: 1993 3 Packing Group: П Label: 3 F-E , EMS: <u>S-E</u> Marine Pollutant. NO Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (ACETONE; METHYL ETHYL KETONE) Transport by air: UN: 1993 IATA: 3 Packing Group: Ш Label: 3 Cargo: Packaging instructions: 364 60 L Maximum quantity: Pass.: Packaging instructions: 353 Maximum quantity: 5 L

SECTION 15. Regulatory information.

Special Instructions:

Proper Shipping Name:

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

A3

Seveso category.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product. Point. 3 - 40

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisarion (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

7b

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:



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None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Product not intended for uses provided for by Dir. 2004/42/CE.

Ingredients according to Regulation (EC) No 648/2004

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Carc. 2	Carcinogenicity, category 2
Eye Irrit. 2	Eye irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H225	Highly flammable liquid and vapour.
H351	Suspected of causing cancer.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R11	HIGHLY FLAMMABLE.
R19	MAY FORM EXPLOSIVE PEROXIDES.
R36	IRRITATING TO EYES.
R36/37	IRRITATING TO EYES AND RESPIRATORY SYSTEM.
Carc. Cat. 3	Carcinogenicity, category 3.
R40	LIMITED EVIDENCE OF A CARCINOGENIC EFFECT.
R66	REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road

- CAS NUMBER: Chemical Abstract Service Number - CE50: Effective concentration (required to induce a 50% effect)

- CE NUMBER: Identifier in ESIS (European archive of existing substances)



CLP: EC Regulation 1272/2008 DNEL: Derived No Effect Level EmS: Emergency Schedule

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GHS: Globally Harmonized System of classification and labeling of chemicals IATA DGR: International Air Transport Association Dangerous Goods Regulation IC50: Immobilization Concentration 50% IMDG: International Maritime Code for dangerous goods IMO: International Maritime Organization INDEX NUMBER: Identifier in Annex VI of CLP LC50: Lethal Concentration 50% LD50: Lethal dose 50% **OEL: Occupational Exposure Level** PBT: Persistent bioaccumulative and toxic as REACH Regulation PEC: Predicted environmental Concentration PEL: Predicted exposure level PNEC: Predicted no effect concentration REACH: EC Regulation 1907/2006 RID: Regulation concerning the international transport of dangerous goods by train TLV: Threshold Limit Value TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure. TWA STEL: Short-term exposure limit TWA: Time-weighted average exposure limit VOC: Volatile organic Compounds vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation - WGK: Water hazard classes (German). GENERAL BIBLIOGRAPHY 1. Directive 1999/45/EC and following amendments 2. Directive 67/548/EEC and following amendments and adjustments 3. Regulation (EC) 1907/2006 (REACH) of the European Parliament 4. Regulation (EC) 1272/2008 (CLP) of the European Parliament 5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament 6. Regulation (EC) 453/2010 of the European Parliament 7. Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament 8. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament 9. The Merck Index. - 10th Edition 10. Handling Chemical Safety 11. Niosh - Registry of Toxic Effects of Chemical Substances 12. INRS - Fiche Toxicologique (toxicological sheet) 13. Patty - Industrial Hygiene and Toxicology 14. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition 15. ECHA website Note for users: The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products. Changes to previous review: The following sections were modified: 03 / 08 / 10 / 11 / 12.