ivm Chemicals
coatings & polymers technologies

Safety Data Sheet
29 CFR Parts 1910 1915 1926

Printing date 09/18/2015 Version number 136 Reviewed on 09/18/2015

1 Identification

· **Product identifier**
· **Product number** LOB5
· **Trade name: CATALYST FOR POLYESTER**
· **Relevant identified uses of the substance or mixture and uses advised against**
Paint and relative material only for wood
· **Application of the substance / the mixture** For professional use

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
IVM Chemicals srl
Viale della Stazione 3 - 27020 Parona (PV) Italy tel +39 038425441

· **Information department:**
Environmental Health and safety office
hseoffice@ivmchemicals.com
· **Emergency telephone number:**
ChemTel Expert Assistance Hotline/SDS Fax Access by dialing 1-800-255-3924 or for International +1-813-248-0585.

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2 Hazard(s) identification

· **Classification of the substance or mixture**


GHS02 Flame

Org. Perox. CD H242 Heating may cause a fire.


GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.


GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.


GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H332 Harmful if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**


GHS02 GHS05 GHS07 GHS08

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· **Signal word** Danger

· **Hazard-determining components of labeling:**
dimethyl phthalate
2-Butanone, peroxide
tert-butyl hydroperoxide

· **Hazard statements**

H242	Heating may cause a fire.
H302+H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H412	Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

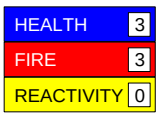
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P410	Protect from sunlight.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**
· **NFPA ratings (scale 0 - 4)**

Health = 3
Fire = 3
Reactivity = 0

The substance possesses oxidizing properties.

· **HMIS-ratings (scale 0 - 4)**



Health = 3
Fire = 3
Reactivity = 0

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Mixture: consisting of the following components.

· **Dangerous components:**		
131-11-3	dimethyl phthalate Acute Tox. 3, H331	50-74.9%
1338-23-4	2-Butanone, peroxide Org. Perox. CD, H242 Acute Tox. 3, H331 Skin Corr. 1B, H314 Acute Tox. 4, H302; Acute Tox. 4, H312	25-29.9%

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123-42-2	4-hydroxy-4-methylpentan-2-one Flam. Liq. 3, H226 Eye Irrit. 2, H319	10-12.49%
75-91-2	tert-butyl hydroperoxide Org. Perox. A, H240 Flam. Liq. 2, H225 Acute Tox. 3, H311; Acute Tox. 2, H330 Muta. 2, H341 Skin Corr. 1B, H314 Aquatic Chronic 2, H411 Acute Tox. 4, H302; Skin Sens. 1, H317 Aquatic Acute 2, H401	10-12.49%

4 First-aid measures

· **Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist , consult a doctor.
· **After swallowing:**
Do not induce vomiting; immediately call for medical help.
Immediately call a doctor.
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed**
For symptoms and effects caused by substances, refer to Section 11.
· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture**
Hazardous decomposition products:
Acetic acid, formic acid, propanoic acid, methyl ethyl ketone
· **Advice for firefighters**
Cool by spraying with water the containers to prevent product decomposition and the development of substances potentially hazardous for health and also, in the case of closed containers exposed to flames to prevent explosions.
· **Protective equipment:**
Hardhat with visor, fireproof clothing, suitable gloves and if necessary respiratory protective device.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources
· **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to Section 13.
Ensure adequate ventilation.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Observe the label precautions, the expiration date for the use, if not indicated, is from delivery date of goods.
In cases where there is no reported expiration date , it means that the product must be used within 8 months.
· **Information about storage in one common storage facility:**
Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.
· **Further information about storage conditions:** Keep receptacle tightly sealed.
· **Recommended storage temperature:** 25 °C
· **Specific end use(s)** Those typical of the product and the instructions in the data sheet if required.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
131-11-3 dimethyl phthalate	
PEL	Long-term value: 5 mg/mį
REL	Long-term value: 5 mg/mį
TLV	Long-term value: 5 mg/mį

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1338-23-4 2-Butanone, peroxide	
REL	Ceiling limit value: 1.5 mg/mį, 0.2 ppm
TLV	Ceiling limit value: 1.5 mg/mį, 0.2 ppm
123-42-2 4-hydroxy-4-methylpentan-2-one	
PEL	Long-term value: 240 mg/mį, 50 ppm
REL	Long-term value: 240 mg/mį, 50 ppm
TLV	Long-term value: 238 mg/mį, 50 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
· **Protection of hands:**

Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The glove material has to be impermeable and resistant to the product .
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**
Safety glasses

Tightly sealed goggles

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**
· **Form:** Fluid
· **Color:** According to product specification
· **Odor:** Characteristic

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· **Odour threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Change in condition**	
· **Melting point/Melting range:**	Undetermined.
· **Boiling point/Boiling range:**	35 °C (95 °F)
· **Flash point:**	100 °C (212 °F)
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition temperature:**	555 °C (1031 °F)
· **Decomposition temperature:**	Not determined.
· **Auto igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
· **Lower:**	1.4 Vol %
· **Upper:**	8.1 Vol %
· **Vapor pressure at 20 °C (68 °F):**	1.1 hPa (1 mm Hg)
· **Density at 20 °C (68 °F):**	1.097 g/cmį (9.154 lbs/gal)
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
· **Water:**	Not miscible or difficult to mix.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
· **Dynamic:**	Not determined.
· **Kinematic at 20 °C (68 °F):**	29 s (ISO 3 mm)
· **Oxidising properties:**	N.A.
· **Solvent content:**	
· **VOC content:**	10.0 % 109.7 g/l / 0.92 lb/gl
· **Solids content:**	80.0 % (EU Regulations)

· **Other information (HAPS)**

131-11-3	dimethyl phthalate	50-74.9%

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** typical of the product as indicated in the data sheet
· **Chemical stability** The product is stable in normal conditions of storage and use recommended
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **Possibility of hazardous reactions** Vapours may form explosive mixtures with air
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.

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· **Hazardous decomposition products:**

in case of possible formation of combustion:
Carbon monoxide and carbon dioxide

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11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
131-11-3 dimethyl phthalate		
Oral	LD50	2500 mg/kg (rat/szczur/mouse/souris/Maus/ratón)
Dermal	LD50	10001 mg/kg (rabbit/królik/Kaninchen/conejo/lapin)
Inhalative	LC50	9.3 mg/l ( ) LC50 - 6.5 h
1338-23-4 2-Butanone, peroxide		
Oral	LD50	1017 mg/kg (rat/szczur/mouse/souris/Maus/ratón)
Dermal	LD50	4000 mg/kg (rat/szczur/mouse/souris/Maus/ratón)
Inhalative	LC50/4 h	17 mg/l (rat/szczur/mouse/souris/Maus/ratón)
123-42-2 4-hydroxy-4-methylpentan-2-one		
Oral	LD50	3002 mg/kg (rat/szczur/mouse/souris/Maus/ratón)
Dermal	LD50	13630 mg/kg (rab)
75-91-2 tert-butyl hydroperoxide		
Oral	LD50	810 mg/kg (rat/szczur/mouse/souris/Maus/ratón)
Dermal	LD50	790 mg/kg (rabbit/królik/Kaninchen/conejo/lapin)
Inhalative	LC50/4 h	1.85 mg/l (rat/szczur/mouse/souris/Maus/ratón)

· **Primary irritant effect:**
· **on the skin:** Caustic effect on skin and mucous membranes.
· **on the eye:** Strong caustic effect.
· **Sensitization:** Sensitization possible through skin contact.

· **Additional toxicological information:**
Harmful if swallowed.
Harmful if inhaled.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of causing genetic defects.
Harmful
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)
None of the ingredients is listed.

· NTP (National Toxicology Program)
None of the ingredients is listed.

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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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12 Ecological information

· **Toxicity** Harmful to aquatic life with long lasting effects.

· Aquatic toxicity:	
123-42-2 4-hydroxy-4-methylpentan-2-one	
EC50	1001 mg/l (algae) (72 h)
	1000 mg/l (daphnia) (48 h)
LC50 (96h)	101 mg/l (Fish)

· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Ecotoxical effects:**
· **Remark:** Harmful to fish
· **Additional ecological information:**
· **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even extremely small quantities leak into the ground.
Harmful to aquatic organisms
· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Hand over to hazardous waste disposers.
Dispose of contents and container in accordance with local state and federal regulations.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**
· **DOT, IMDG, IATA** UN3105

· **UN proper shipping name**
· **DOT** Organic peroxide type D, liquid (tert-butyl hydroperoxide, 2-Butanone, peroxide)
· **IMDG, IATA** ORGANIC PEROXIDE TYPE D, LIQUID (tert-butyl hydroperoxide, 2-Butanone, peroxide)

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· **Transport hazard class(es)**

· **DOT**

· **Class**	5.2 Organic peroxides
· **Label**	5.2, 8
· **Class**	5.2 Organic peroxides
· **Label**	5.2+8

· **IMDG**

· **Class**	5.2 Organic peroxides
· **Label**	5.2/8

· **IATA**

· **Class**	5.2 Organic peroxides
· **Label**	5.2 (8)

· **Packing group**
· **DOT, IMDG, IATA** II

· **Environmental hazards:**
· **Marine pollutant:** No

· **Special precautions for user** Warning: Organic peroxides
· **EMS Number:** F-J,S-R

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **IMDG**
· **Limited quantities (LQ)** 125 ml
· **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

· **UN "Model Regulation":** UN3105, Organic peroxide type D, liquid (tert-butyl hydroperoxide, 2-Butanone, peroxide), 5.2 (8), II

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

Requirements of Federal Register

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· **SARA**

· **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings) :**

131-11-3	dimethyl phthalate	50-74.9%

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

131-11-3	dimethyl phthalate	D	50-74.9%

· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **National regulations:**
The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** IVM Chemicals Srl
· **Contact:** See emergency phone
· **Date of preparation / last revision** 09/18/2015 / 135
· **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Org. Perox. A: Organic Peroxides, Type A

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Org. Perox. CD: Organic Peroxides, Types C, D
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 2: Acute toxicity, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Muta. 2: Germ cell mutagenicity, Hazard Category 2
Aquatic Acute 2: Hazardous to the aquatic environment - AcuteHazard, Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· ***Sources***
Directive 1999/45/EC and following amendments
Directive 67/548/EEC and following amendments and adjustments
Agency ECHA web site
INRS Fiche Toxicologique
IARC International agency for research on cancer

· **** Data compared to the previous version altered.***