

## Safety Data Sheet

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Code: **MON P252**  
Product name: **MONOCOMPONENTE P.454**  
Chemical name and synonym: **MONOCOMPONENTE P.454**

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.3. Details of the supplier of the safety data sheet

Name: **LARPS GROUP s.r.l.**  
Full address: **Via Pasubio, 196**  
District and Country: **36010 Zanè (VI) Italia**  
Tel.: **0445/314050**  
Fax: **0445/314121**  
e-mail address of the competent person responsible for the Safety Data Sheet: **andrea.parise@larps.it**

#### 1.4. Emergency telephone number

For urgent inquiries refer to: **0445/314050 orari ufficio**

### 2. Hazards identification.

#### 2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in Directives 67/548/EEC and 1999/45/EC and/or 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.

Danger Symbols: **F-Xi**

R phrases: **11-36-66-67**

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

#### 2.2. Label elements.

Hazard labelling pursuant to Directives 67/548/EEC and 1999/45/EC and subsequent amendments and supplements.



**R11** HIGHLY FLAMMABLE.  
**R36** IRRITATING TO EYES.  
**R66** REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.  
**R67** VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.  
**S 9** KEEP CONTAINER IN A WELL-VENTILATED PLACE.  
**S16** KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.  
**S25** AVOID CONTACT WITH EYES.  
**S26** IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.  
**S33** TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.  
**S43** IN CASE OF FIRE, USE . . . (INDICATE IN THE SPACE THE PRECISE TYPE OF FIRE-FIGHTING EQUIPMENT. IF WATER INCREASES RISK, ADD - 'NEVER USE WATER').

### 2.3. Other hazards.

Information not available.

## 3. Composition/information on ingredients.

### 3.1. Substances.

Information not relevant.

### 3.2. Mixtures.

#### Contains:

| Identification.            | Conc. %. | Classification 67/548/EEC. | Classification 1272/2008 (CLP).                              |
|----------------------------|----------|----------------------------|--|
| <b>ACETONE</b>             |          |                            |  |
| CAS. 67-64-1               | 30 - 45  | R66, R67, F R11, Xi R36    | Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066 |
| EC. 200-662-2              |          |                            |  |
| INDEX. 606-001-00-8        |          |                            |  |
| Reg. no. 01-2119471330-49  |          |                            |  |
| <b>ETHYL ACETATE</b>       |          |                            |  |
| CAS. 141-78-6              | 20 - 30  | R66, R67, F R11, Xi R36    | Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066 |
| EC. 205-500-4              |          |                            |  |
| INDEX. 607-022-00-5        |          |                            |  |
| Reg. no. 01-2119475103-46  |          |                            |  |
| <b>METHYL ETHYL KETONE</b> |          |                            |  |
| CAS. 78-93-3               | 15 - 20  | R66, R67, F R11, Xi R36    | Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066 |
| EC. 201-159-0              |          |                            |  |
| INDEX. 606-002-00-3        |          |                            |  |
| Reg. no. 01-2119457290-43  |          |                            |  |

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

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

## 4. First aid measures.

### 4.1. Description of first aid measures.

EYES: Irrigate copiously with clean, fresh water for at least 15 minutes. Seek medical advice.

SKIN: Wash immediately with plenty of water. Remove contaminated clothing. If irritation persists, seek medical attention. Wash contaminated clothing before using them again.

INHALATION: Remove to open air. If breathing is irregular, seek medical advice.

INGESTION: Obtain immediate medical attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person.

### 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.

Follow doctor's orders.

## 5. Firefighting measures.

### 5.1. Extinguishing media.

#### SUITABLE EXTINGUISHING MEDIA

The extinction equipment should contain carbon dioxide, foam or chemical powders. For product leaks and spills that have not caught fire, nebulised water can be used to dispel flammable fumes and protect the individuals taking part in stemming the leak.

#### EXTINGUISHING MEDIA WHICH SHALL NOT BE USED FOR SAFETY REASONS

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

Excess pressure may form in containers exposed to fire at a risk of explosion.

Do not breathe combustion products (carbon oxide, toxic pyrolysis products, etc).



### 5.3. Advice for firefighters.

#### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water and the remains of the fire according to applicable regulations.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Hardhat with visor, fireproof clothing (fireproof jacket and trousers with ties around arms, legs and waist) work gloves (fireproof, cut proof and dielectric), self-respirator (self-protector).

## 6. Accidental release measures.

### 6.1. Personal precautions, protective equipment and emergency procedures.

Eliminate sources of ignition (cigarettes, flames, sparks, etc.) from the air in which the leak occurred. If there are no contraindications, spray solid products with water to prevent the formation of dust. Use breathing equipment if fumes or powders are released into the air. Block the leakage if there is no hazard. Do not handle damaged containers or leaked product before donning appropriate protective gear. Send away individuals who are not suitably equipped. For information on risks for the environmental and health, respiratory tract protection, ventilation and personal protection equipment, refer to the other sections of this sheet. These indications apply for both processing staff and those involved in emergency procedures.

### 6.2. Environmental precautions.

The product must not penetrate the sewers, surface water, ground water and neighbouring areas.

### 6.3. Methods and material for containment and cleaning up.

For liquid products, suck into a suitable container (made of material not incompatible with the product) and soak up any leaked product with absorbent inert material (sand, vermiculite, diatomaceous earth, Kieselguhr, etc). Collect the majority of the remaining material and deposit in containers for disposal. For solid products, use spark proof mechanical tools to collect the leaked product and place in plastic containers. If there are no contraindications, use jets of water to eliminate product residues. Make sure the leakage site is well aired. 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.

## 7. Handling and storage.

### 7.1. Precautions for safe handling.

Avoid the accumulation of electrostatic charges.

Vapours may ignite with explosion, it is therefore necessary to avoid accumulation keeping the windows and doors open, ensuring crossventilation. Without adequate ventilation, the vapours may accumulate at the bottom and ignite at a distance, if triggered off, with the risk of flashback. Keep far away from sources of heat, sparks and bright flames. Do not smoke, use matches or lighters. Keep the containers earthed while decanting and wear antistatic boots.

Vigorous stirring and flow through the pipings and equipment may cause the formation and accumulation of electrostatic charges due to the low conductivity of the product. In order to avoid the risk of fire outbreak and explosion never use compressed air during movement.

### 7.2. Conditions for safe storage, including any incompatibilities.

Store the containers sealed and in a well ventilated place.

### 7.3. Specific end use(s).

Information not available.

## 8. Exposure controls/personal protection.

### 8.1. Control parameters.

| Name                | Type      | Country | TWA/8h |     | STEL/15min |      |
|---------------------|-----------|---------|--------|-----|------------|------|
|                     |           |         | mg/m3  | ppm | mg/m3      | ppm  |
| ACETONE             | TLV-ACGIH |         | 1187   | 500 | 1781       | 750  |
|                     | OEL       | EU      | 1210   | 500 |            |      |
|                     | OEL       | IRL     |        | 500 |            |      |
|                     | WEL       | UK      |        | 500 |            | 1500 |
| ETHYL ACETATE       | TLV-ACGIH |         | 1441   | 400 |            |      |
|                     | OEL       | IRL     |        | 400 |            |      |
|                     | WEL       | UK      |        | 200 |            | 400  |
| METHYL ETHYL KETONE | TLV-ACGIH |         | 590    | 200 | 885        | 300  |
|                     | OEL       | EU      | 600    | 200 | 900        | 300  |
|                     | OEL       | IRL     |        | 200 |            | 300  |

WEL

UK

200

300

### 8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration or bad air vent. If such operations do not make it possible to keep the concentration of the product below the permitted workplace exposure thresholds a suitable respiratory tract protection must be used. See product label for hazard details during use. Personal protection equipment must comply with the rules in force indicated below.

#### HAND PROTECTION

Protect hands with category II (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in PVC, neoprene, nitril or equivalent. The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves' limit depends on the duration of exposure.

#### EYE PROTECTION

Wear protective airtight goggles (ref. standard EN 166).

#### SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN 344). Wash body with soap and water after removing overalls.

#### RESPIRATORY PROTECTION

If the threshold value (if available) for one or more of the substances present in the preparation for daily exposure in the workplace or to a fraction established by the company's prevention and protection service is exceeded, wear a mask with an AX or universal filter, the class (1, 2 or 3) of which must be chosen according to the limit concentration of use (ref. standard EN 141).

The use of respiratory tract protection equipment, such as masks like that indicated above, is necessary to reduce worker exposure in the absence of technical measures. The protection provided by masks is in any case limited.

If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).

An emergency eye washing and shower system must be provided.

## 9. Physical and chemical properties.

### 9.1. Information on basic physical and chemical properties.

|  |                |
|--|----------------|
| Appearance                             | viscous liquid |
| Colour                                 | opalescent     |
| Odour                                  | characteristic |
| Odour threshold.                       | Not available. |
| pH.                                    | Not available. |
| Melting or freezing point.             | Not available. |
| Initial boiling point.                 | Not available. |
| Boiling range.                         | Not available. |
| Flash point.                           | < 21 °C.       |
| Evaporation Rate                       | Not available. |
| Flammability of solids and gases       | Not available. |
| Lower inflammability limit.            | Not available. |
| Upper inflammability limit.            | Not available. |
| Lower explosive limit.                 | Not available. |
| Upper explosive limit.                 | Not available. |
| Vapour pressure.                       | Not available. |
| Vapour density                         | Not available. |
| Specific gravity.                      | 0,85 Kg/l      |
| Solubility                             | insoluble      |
| Partition coefficient: n-octanol/water | Not available. |
| Ignition temperature.                  | Not available. |
| Decomposition temperature.             | Not available. |
| Viscosity                              | Not available. |
| Reactive Properties                    | Not available. |

### 9.2. Other information.

|                              |         |   |        |          |
|------------------------------|---------|---|--------|----------|
| VOC (Directive 1999/13/EC) : | 82,00 % | - | 697,00 | g/litre. |
| VOC (volatile carbon) :      | 49,68 % | - | 422,31 | g/litre. |

## 10. Stability and reactivity.

### 10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

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.

ETHYL ACETATE: decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

#### 10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

#### 10.3. Possibility of hazardous reactions.

The vapours may also form 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.

ETHYL ACETATE: risk of explosion on contact with: metals, alkalis, hydrides. oleum. can react violently with: fluoride, strong oxidising agents, chlorosulfuric acid, potassium tert-butoxide. Forms explosive mixtures with the air.

#### 10.4. Conditions to avoid.

Avoid overheating, electrostatic discharge and all sources of ignition.

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

BUTANONE: avoid exposure to sources of heat.

ETHYL ACETATE: avoid exposure to light, sources of heat and naked flames.

#### 10.5. Incompatible materials.

ACETONE: acid and oxidising substances.

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

ETHYL ACETATE: acids and bases, strong oxidising agents; aluminium and some plastics, nitrates and chlorosulphuric acid.

#### 10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, vapours potentially dangerous to health may be released.

ACETONE: ketenes and other irritating compounds.

### 11. Toxicological information.

#### 11.1. Information on toxicological effects.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Vapour inhalation may moderately irritate the upper respiratory tract. Contact with skin may cause slight irritation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

This product may have a degreasing action on the skin, producing dryness and chapped skin after repeated exposure.

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.

#### METHYL ETHYL KETONE

|                    |                   |
|--------------------|-------------------|
| LD50 (Oral):       | 2737 mg/kg Rat    |
| LD50 (Dermal):     | 6480 mg/kg Rabbit |
| LC50 (Inhalation): | 23,5 mg/l/8h Rat  |

### 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

#### 12.1. Toxicity.

Information not available.

#### 12.2. Persistence and degradability.

Information not available.

#### 12.3. Bioaccumulative potential.

Information not available.

#### 12.4. Mobility in soil.

Information not available.

#### 12.5. Results of PBT and vPvB assessment.

Information not available.

#### 12.6. Other adverse effects.

Information not available.

### 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.

CONTAMINATED PACKAGING

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

### 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: | 1133 |
| Packing Group:           | II        |     |      |
| Label:                   | 3         |     |      |
| Nr. Kemler:              | 33        |     |      |
| Limited Quantity:        | 5 L       |     |      |
| Tunnel restriction code: | (D/E)     |     |      |
| Proper Shipping Name:    | ADHESIVES |     |      |
| Special Provision:       | 640D      |     |      |



#### Carriage by sea (shipping):

|                       |           |     |      |
|-----------------------|-----------|-----|------|
| IMO Class:            | 3         | UN: | 1133 |
| Packing Group:        | II        |     |      |
| Label:                | 3         |     |      |
| EMS:                  | F-E, S-D  |     |      |
| Marine Pollutant:     | NO        |     |      |
| Proper Shipping Name: | ADHESIVES |     |      |



#### Transport by air:

|                         |           |                   |      |
|-------------------------|-----------|-------------------|------|
| IATA:                   | 3         | UN:               | 1133 |
| Packing Group:          | II        |                   |      |
| Label:                  | 3         |                   |      |
| Cargo:                  |           |                   |      |
| Packaging instructions: | 364       | Maximum quantity: | 60 L |
| Pass.:                  |           |                   |      |
| Packaging instructions: | 353       | Maximum quantity: | 5 L  |
| Special Instructions:   | A3        |                   |      |
| Proper Shipping Name:   | ADHESIVES |                   |      |



### 15. Regulatory information.

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

Seveso category. 7b

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 authorisation (Annex XIV REACH).

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.

**15.2. Chemical safety assessment.**

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

**16. Other information.**

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

|                     |  |
|---------------------|--|
| <b>Flam. Liq. 2</b> | Flammable liquid, category 2                                 |
| <b>Eye Irrit. 2</b> | Eye irritation, category 2                                   |
| <b>STOT SE 3</b>    | Specific target organ toxicity - single exposure, category 3 |
| <b>H225</b>         | Highly flammable liquid and vapour.                          |
| <b>H319</b>         | Causes serious eye irritation.                               |
| <b>H336</b>         | May cause drowsiness or dizziness.                           |
| <b>EUH066</b>       | Repeated exposure may cause skin dryness or cracking.        |

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

|            |   |
|------------|---|
| <b>R11</b> | HIGHLY FLAMMABLE.                                     |
| <b>R36</b> | IRRITATING TO EYES.                                   |
| <b>R66</b> | REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING. |
| <b>R67</b> | VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.           |

**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. The Merck Index. - 10th Edition
8. Handling Chemical Safety
9. Niosh - Registry of Toxic Effects of Chemical Substances
10. INRS - Fiche Toxicologique (toxicological sheet)
11. Patty - Industrial Hygiene and Toxicology
12. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
13. 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.

**Changes to previous review:**

The following sections were modified:

01 / 03.