

**MATERIAL SAFETY DATA SHEET**

(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

**LACQUER SOLAR-K****1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY / UNDERTAKING****1.1 Product identifier:**

**Product name** : LACQUER SOLAR-K  
**Product code** : P2234SSUV  
**Description** : Single-component acrylic aqueous-based lacquer  
**Type of product** : Viscous liquid (white)

**1.2 Relevant identified uses of the substance or mixture and uses advised against:**

Sun protection lacquer used to cover transparent or translucent surfaces made of glass, polyester, polyacrylate, and polycarbonate.

**1.3 Details of the supplier of the safety data sheet:**

Registered company name: KNOHO SARL  
Address: 23 chemin du Rouet - 13620 - CARRY LE ROUET - France  
Telephone: +33 (0)4 42 45 24 40 - Fax: +33 (0)9 59 88 18 06  
E-mail address of the person in charge of the MSDS: hse@knoho.eu

**1.4 Emergency telephone number: +33 (0)6 42 54 78 94**

Association/Organisation: INRS/ORFILA <http://www.centres-antipoison.net>.

**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture:**

**In compliance with EC regulation No. 1272/2008 and its amendments:**

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site. This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

**In compliance with directives 67/548/EEC, 1999/45/EC and their amendments:**

Oxidising (O, R 8).

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).  
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

**2.2. Label elements:**

**In compliance with EC regulation No. 1272/2008 and its amendments:**

Hazard pictograms: None

**2.3 Other hazards**

The mixture does not contain any substances classified as 'Substances of Very High Concern' (SVHC  $\geq 0,1\%$ ) by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>  
The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

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**LACQUER SOLAR-K****3. COMPOSITION / INFORMATION ON INGREDIENTS****3.2. Mixtures:****Composition:**

INDEX	CAS	EC/REACH	Nom	CE 1272/2008	Dir67/548/CEE	%
INF0066	13463-67-7	EC:236-675-5 REACH : 01- 2119489379- 17 (1)	TITANIUM DIOXYDE			2.5 <= x % < 10

(1) Substance for which maximum workplace exposure limits are available.

**4. FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.  
**NEVER induce swallowing by an unconscious person.**

**4.1 Description of first aid measures:****In the event of splashes or contact with eyes:**

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

**In the event of splashes or contact with skin:**

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

**In the event of swallowing:**

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

**LACQUER SOLAR-K****5. FIREFIGHTING MEASURES**

**Non-flammable**

**5.1. Extinguishing media****Suitable methods of extinction**

- In the event of a fire, use:
- Sprayed water or water mist
  - Foam
  - Multipurpose ABC powder
  - BC powder
  - Carbon dioxide (CO<sub>2</sub>)

**Unsuitable methods of extinction**

In the event of a fire, do not use **water jet**

**5.2. Special hazards arising from the substance or mixture**

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed:

- Carbon monoxide (CO)
- Carbon dioxide (CO<sub>2</sub>)

**5.3. Advice for fire fighters**

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

**6. ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed under headings 7 and 8.

**For non first aid worker**

Avoid any contact with the skin and eyes.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

**6.2. Environmental precautions**

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

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

Clean preferably with a detergent, do not use solvents.

**6.4. Reference to other sections**

No data available.

**LACQUER SOLAR-K****7. HANDLING AND STORAGE**

Requirements relating to storage premises apply to all facilities where the mixture is handled.

**7.1. Precautions for safe handling**

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

**Fire prevention:**

Prevent access by unauthorised personnel.

**Recommended equipment and procedures:**

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Packages, which have been opened, must be reclosed carefully and stored in an upright position.

**Prohibited equipment and procedures:**

No smoking, eating or drinking in areas where the mixture is used.

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

No data available.

**Storage**

Keep the container tightly closed in a dry, well-ventilated place.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

**Packaging**

Always keep in packaging made of an identical material to the original.

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

No data available.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

Occupational exposure limits:

-(France / INRS - ED984: 2012)

CAS	VME-ppm:	VME-mg/m3:	VLE-ppm:	VLE-mg/m3:	Notes:	TMP N° :
13463-67-7	-	10	-	-	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2007):

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
13463-67-7	10 mg/m3	-	-	-	TI

**8.2. Exposure controls**

MSDS issued by:

**KNOHO** – 23 chemin du Rouet – 13620 – CARRY LE ROUET – France

Tel.: +33 (0)6 42 54 78 94

Fax: +33 (0)9 59 88 18 06

MSDS established on:

27/10/2014

Date of revision: 27/05/2015

Product code:

NF P2234

Revision number: 3

Revision purpose:

New CLP rules, change of reference number

**LACQUER SOLAR-K****Personal protection measures, such as personal protective equipment**

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE):



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

**- Eye / face protection**

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

**- Hand protection**

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended:

- PVA (Polyvinyl alcohol) or Natural latex

Recommended properties:

- Impervious gloves in accordance with standard EN374

**- Body protection**

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

**LACQUER SOLAR-K****9. PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties****General information:**

Physical state: Viscous liquid.

**Important health, safety and environmental information**

pH :	Not stated. Slightly basic.
Boiling point/boiling range:	Not specified.
Flash Point Interval:	Not relevant
Vapour pressure (50°C):	Not relevant.
Density:	>= 1
Water solubility:	Dilutable.
Melting point/melting range:	Not specified.
Self-ignition temperature:	Not specified.
Decomposition point/decomposition range:	Not specified.

**9.2. Other information**

VOC (g/l) 1,51 g/l

**10. STABILITY AND REACTIVITY****10.1. Reactivity**

No data available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

**10.4. Conditions to avoid****10.5. Incompatible materials****10.6. Hazardous decomposition products**

The thermal decomposition may release/form:

- Carbon monoxide (CO)
- Carbon dioxide (CO<sub>2</sub>)

**11. TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

No data available

**11.1.1. Substances**

No toxicological data available for the substances.

**11.1.2. Mixture**

No toxicological data available for the mixture.

**LACQUER SOLAR-K****12. ECOLOGICAL INFORMATION****12.1. Toxicity****12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

**12.2. Persistence and degradability**

No data available.

**12.3. Bio accumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

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

No data available.

**12.6. Other adverse effects**

No data available.

**German regulations concerning the classification of hazards for water (WGK):**

WGK 1 (VwVwS vom 27/07/2005, KBws): Slightly hazardous for water.

**13. DISPOSAL CONSIDERATIONS**

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

**13.1. Waste treatment methods**

Do not pour into drains or waterways.

**Waste:**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste; do not dispose of waste into the environment.

**Soiled packaging:**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

**14. TRANSPORT INFORMATION****Exempt from transport classification and labelling.**

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR2013 - IMDG 2012 - ICAO/IATA 2014).

**LACQUER SOLAR-K****15. REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Classification and labelling information included in section 2:**

The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.

**Container information:**

No data available.

**Particular provisions:**

No data available.

**German regulations concerning the classification of hazards for water (WGK):**

WGK 1 (VwVwS vom 27/07/2005, KBws): Slightly hazardous for water.

**15.2. Chemical safety assessment**

No data available.

**16. OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.**

Hazard symbols:





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**LACQUER SOLAR-K****Risk phrase:**

R 8 Contact with combustible material may cause fire.

**Safety phrase:**

S 17 Keep away from combustible material.

**Abbreviations**

ADR: European agreement concerning the international carriage of dangerous goods by Road

IMDG: International Maritime Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous goods by rail

WGK: Wassergefahrdungsklasse (Water Hazard Class).

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