

Safety Data Sheet



1. Identification

Product Information: 00754900
Family: 509
Product Name: KLASS 3+1 HARDENER
Recommended Use: Catalyst
Supplied by/Manufacturer: SUR QUIMICA S.A.
 Calle 38, contiguo al Cementerio La Uruca.
 San José, Costa Rica, Centroamérica
 Tel Información: (506) 2211-3700,
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Safety Data Sheet Coordinator: sds@gruposur.com

2. Hazards Identification

GHS Classification

Aquatic Acute 3, Eye Irrit. 2A, Flam. Liq. 2, Resp. Sens. 1, Skin Irrit. 2, Skin Sens. 1, STOT SE 3 NE

Symbol(s) of Product



Signal Word
 Danger

GHS HAZARD STATEMENTS

Flammable Liquid, category 2	H225	Highly flammable liquid and vapour.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2A	H319	Causes serious eye irritation.
Respiratory Sensitizer, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, Acute, category 3	H402	Harmful to aquatic life.

GHS LABEL PRECAUTIONARY STATEMENTS

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	In case of inadequate ventilation wear respiratory protection.

P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P321	Specific treatment (see FIRST AID on this sheet).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use materials indicated in Section 5 to extinguish.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Remove the contents / container according to the General Regulation for the Classification and Management of Hazardous Waste No. 41527-S-MINAE (Applies to Costa Rica). Dispose of contents/container in accordance with local/regional/national/international regulations.

GHS SDS PRECAUTIONARY STATEMENTS

P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/...] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.

3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Wt. %</u>	<u>GHS Symbols</u>	<u>GHS Statements</u>
n-Butyl Acetate	123-86-4	30-40	GHS02-GHS07	H225-315-320-332-336-402
Resina (poliisocianato aromático)	28805-80-3	20-30	No Information	No Information
Metyl Ethyl Ketone	78-93-3	10-20	GHS02-GHS07	H225-303-315-320-335-336
Poly(tolylene 2,4-diisocyanate) solution	26006-20-2	10-20	GHS07	H315-317-319-332-336-402
Acetato de Etilo	141-78-6	2.5-10	GHS02-GHS07	H225-319-336
4-Toluenosulfonil-isocianato	4083-64-1	0.1-1.0	GHS07-GHS08	H303-315-319-334-335

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures

FIRST AID - INHALATION: Artificial respiration and/or oxygen may be necessary. Keep the victim calm. Ensure that medical personnel are aware of the materials involved and take precautions to protect themselves. Oxygen or artificial respiration if needed. If inhaled, remove to fresh air. Give oxygen if necessary. Consult a physician if symptoms persist or exposure is severe.

FIRST AID - SKIN CONTACT: Seek medical advice. In case of skin contact, wash immediately with plenty of water for at least 20 minutes. In case of contact, wash skin immediately with soap and water. In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. In case of burns, immediately wash skin with cold water. Seek medical advice. Do not remove clothes stick to the skin. Seek medical advice.

FIRST AID - EYE CONTACT: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

FIRST AID - INGESTION: If ingested, do not induce vomiting. If conscious, drink 8-10 oz. of water promptly. Call a physician immediately.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heating may cause an explosion. Flammable liquid. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to a distant ignition source and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). When heated, emits highly irritating and

noxious vapors.

SPECIAL FIREFIGHTING PROCEDURES: Do not use a solid water stream as it may scatter and spread fire. Move containers from fire area if you can do it without risk. All these products have a very low flash point: Use of water spray when fighting fire may be inefficient. Use a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode. Flammable. Cool fire-exposed containers using water spray. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

6. Accidental Release Measures

ENVIRONMENTAL MEASURES: Do not allow to enter drains, sewers, or sewers. Inform the authorities in the event of a leak in natural water courses or in the sewage system.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Keep unauthorized personnel away. Stay upwind, uphill and/or upstream. Water spray can reduce vapours, but may not prevent ignition in enclosed spaces. Ventilate closed spaces before entering. All equipment used when handling the product must be grounded. Use clean, non-sparking tools to collect absorbed material. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Use water spray to reduce vapors or divert vapor cloud drift. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Dike to prevent entering any sewer or waterway. Transfer liquid to a holding container. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

7. Handling and Storage



HANDLING: Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Never use air pressure for transferring product. Use only in well-ventilated areas. Handle in accordance with good industrial hygiene and safety practice. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children. Take precautionary measures against static discharges. Hazardous residue may remain in emptied container. Do not reuse empty containers without commercial cleaning or reconditioning.

STORAGE: Keep in a dry, cool and well-ventilated place. Once used, the container should be closed and keep in a well ventilated area and in vertical position to prevent losses. Keep containers closed when not in use.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH-TLV STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>
n-Butyl Acetate	150 ppm	N.E.	N.E.	N.E.
Resina (poliisocianato aromático)	N.E.	N.E.	N.E.	N.E.
Metyl Ethyl Ketone	N.E.	N.E.	200 ppm	N.E.
Poly(tolylene 2,4-diisocyanate) solution	N.D.	N.E.	N.E.	N.E.
Acetato de Etilo	310 ppm	N.E.	400 ppm	N.E.
4-Toluenosulfonil-isocianato	N.D.	N.E.	N.D.	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation
Sk = Skin Sensitizer N.E. = Not Established

Personal Protection



RESPIRATORY PROTECTION: In case of insufficient ventilation, wear suitable respiratory equipment.



SKIN PROTECTION: Wear nitrile or neoprene gloves. Gloves should be inspected before use. Use the correct technique to remove the gloves (without touching the exterior surface) to prevent skin contact with the product.



EYE PROTECTION: Wear chemical goggles and faceshield (if not wearing a full facepiece respirator). Wear approved eye protection according to applicable governmental regulations.



OTHER PROTECTIVE EQUIPMENT: When required, according to the concentration of the product, wear chemical protective clothing with limited thermal protection.



HYGIENIC PRACTICES: 022 <undefined> Wash hands and face before breaks and immediately after handling the product. Contaminated clothing should be changed and washed before reuse. Eating, drinking and smoking in immediate work area should be prohibited.

9. Physical and Chemical Properties

Appearance:	Liquid	Physical State:	Liquid
Odor:	Characteristic	Odor Threshold, ppb:	Not Established
Density, g/ml:	0.987	pH:	N.A.
Freeze Point, °C:	No Information	Viscosity, cP:	No Information
Solubility in Water:	No	Partition Coefficient, n-octanol/water:	No Information
Decomposition temperature, °C	No Information		
Boiling Range, °C:	50 - 60	Explosive Limits, %:	0.0 - 99.0
Combustibility:	Sin Información	Flash Point, °C:	10
Evaporation Rate:	No Information	Auto-Ignition Temperature, °C	No Information
Vapor Density:	No Information	Vapor Pressure, mmHg:	No Information

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

STABILITY: Stable under recommended storage conditions.

CONDITIONS TO AVOID: Keep away from sources of ignition: heat, flame and sparks.

INCOMPATIBILITY: Oxidizing agents, strong acids and strong bases. Keep away from strong oxidizing agents, heat and open flames.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition can lead to release of irritating gases and vapors.

11. Toxicological Information



Practical Experiences

INFORMATION ON TOXICOLOGICAL EFFECTS

Acute Toxicity: No Information

Skin corrosion/irritation: No Information

Serious eye damage/eye irritation: No Information

Respiratory or skin sensitisation: No Information

Germ cell mutagenicity: No Information

Carcinogenicity: No Information

Reproductive toxicity: No Information

Specific target organ toxicity - single exposure: No Information

Specific target organ toxicity - repeated exposure: No Information

Aspiration hazard: No Information

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50 (mg/kg)</u>	<u>Vapor LC50</u>
123-86-4	n-Butyl Acetate	10760	>14000	>20
28805-80-3	Resina (poliisocianato aromático)	>5000	>5000	>20
78-93-3	Metyl Ethyl Ketone	2737	6780	>20
26006-20-2	Poly(tolylene 2,4-diisocyanate) solution	>5000	>5000	>20
141-78-6	Acetato de Etilo	5620	18000	1600
4083-64-1	4-Toluenosulfonil-isocianato	2600	>5000	>20

N.I. = No Information

Toxicidad Dermal del producto: 0.00 mg/kg

12. Ecological Information

Toxicity: No Information

Persistence and Degradability: No Information

Bioaccumulative potential: No Information

Mobility in the soil: No Information

Other adverse effects: No Information

13. Disposal Information

DISPOSAL METHOD: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. Prevent entry into waterways, sewers, basements or confined areas.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No Information

Sea Transport

UN Number:	1263
IMDG/GGVSee Class:	3
Packing Group:	II
Shipping Name:	Paint or material related to paint
Marine Pollutant:	No
Shipping Hazard(Marine Pollutant):	No Information

Air Transport

UN Number:	1263
ICAO/IATA Class:	3
Packing Group:	II
Shipping Name:	Paint or material related to paint

15. Regulatory Information

No information available

16. Other Information

Revision Date: 7/3/2023 Supersedes Date: New MSDS
Reason for revision: No Information
Datasheet produced by: SUR Química S.A.

Hazardous Material Information System: HMIS

Health	2	Flammability	3	Reactivity	1	Personal Protection	H	Chronic Hazard	Sí	Target Organ	PULMO NES
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National Fire Protection Association: NFPA

Flammability	3	Health	2	Reactivity	1	Special Hazards	N/A
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Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H225	Highly flammable liquid and vapour.
H303	May be harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H320	Causes eye irritation
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H402	Harmful to aquatic life.

Icons for GHS Pictograms shown in Section 3 describing each ingredient:

GHS02



GHS07



GHS08



Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained in this safety sheet has been prepared for SUR QUIMICA S.A. based on the data provided by suppliers and manufacturers of the raw materials involved. This document is intended to be a guide for safe use according to use. The user receiving this information must be properly trained and be able to use his independent judgment to determine its applicability in particular uses. This safety data sheet (SDS) does not in any way exempt the user from knowing and complying with the good practices and rules of use applicable to their activity. The user must assume full responsibility to know and take precautions related to the use of the product. The exposure scenario is subject to revision and changes. The user must ensure that they have the latest version of the FDS. The updated versions are available on the website www.gruposur.com