

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

1 Identification

- **Product identifier**
- **Trade name:** LSR/30
- **Article number:** LSR/30
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Chemical Consultants Inc.
1850 Wild Turkey Circle
Corona, CA 92880
USA
+1 (951) 735-5511
ncollins@ccidom.com
- **Information department:** Product safety department
- **Emergency telephone number:** INFOTRAC 1-800-535-5053

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.

Flam. Liq. 4 H227 Combustible liquid.

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



GHS05

- **Signal word** Danger
- **Hazard-determining components of labeling:**
potassium hydroxide
sodium hydroxide
Nonylphenol ethoxylate
- **Hazard statements**
H227 Combustible liquid.
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**
P210 Keep away from flames and hot surfaces. – No smoking.
P260 Do not breathe dusts or mists.
P280 Wear protective gloves / eye protection / face protection.
P264 Wash thoroughly after handling.
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.
P321 Specific treatment (see on this label).

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

Trade name: LSR/30

(Contd. of page 1)

- P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P363 Wash contaminated clothing before reuse.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
 P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
 P405 Store locked up.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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



- **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = 3
FIRE	2	Fire = 2
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

1310-58-3	potassium hydroxide	1-10%
107-98-2	1-methoxy-2-propanol	1-5%
111-76-2	2-butoxyethanol	1-5%
1310-73-2	sodium hydroxide	1-5%
	Nonylphenol ethoxylate	1-5%

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:** 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. Then consult a doctor.
- **After swallowing:**
 Immediately call a doctor.

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

Trade name: LSR/30

(Contd. of page 2)

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** *No further relevant information available.*
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** *No further relevant information available.*
- **Advice for firefighters**
- **Protective equipment:** *No special measures required.*

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Dilute with plenty of water.
For large spills: 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 item 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.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** *Keep respiratory protective device available.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *No special requirements.*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *Keep receptacle tightly sealed.*
- **Specific end use(s)** *No further relevant information available.*

8 Exposure controls/personal protection

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

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

Trade name: LSR/30

(Contd. of page 3)

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

1310-58-3 potassium hydroxide

REL Ceiling limit value: 2 mg/m³TLV Ceiling limit value: 2 mg/m³

107-98-2 1-methoxy-2-propanol

REL Short-term value: 540 mg/m³, 150 ppmLong-term value: 360 mg/m³, 100 ppmTLV Short-term value: 369 mg/m³, 100 ppmLong-term value: 184 mg/m³, 50 ppm

111-76-2 2-butoxyethanol

PEL Long-term value: 240 mg/m³, 50 ppm
SkinREL Long-term value: 24 mg/m³, 5 ppm
SkinTLV Long-term value: 97 mg/m³, 20 ppm
BEI

1310-73-2 sodium hydroxide

PEL Long-term value: 2 mg/m³REL Ceiling limit value: 2 mg/m³TLV Ceiling limit value: 2 mg/m³

· **Ingredients with biological limit values:**

111-76-2 2-butoxyethanol

BEI 200 mg/g creatinine

Medium: urine

Time: end of shift

Parameter: Butoxyacetic acid with hydrolysis

· **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.

Store protective clothing separately.

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

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

Trade name: LSR/30

(Contd. of page 4)

- **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:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Fluid
Color: According to product specification

- **Odor:** Characteristic

- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 100 °C (212 °F)

- **Flash point:** 74 °C (165 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 240 °C (464 °F)

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Not determined.

- **Explosion limits:**

Lower: 1.5 Vol %
Upper: 9.7 Vol %

- **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)

- **Density at 20 °C (68 °F):** 1.152 g/cm³ (9.613 lbs/gal)

- **Relative density** Not determined.

- **Vapour density** Not determined.

- **Evaporation rate** Not determined.

- **Solubility in / Miscibility with**

Water: Fully miscible.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic: Not determined.

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

Trade name: LSR/30

(Contd. of page 5)

Kinematic:	Not determined.
-------------------	-----------------

Solvent content:	
-------------------------	--

VOC content:	387.0 g/l / 3.23 lb/gl
---------------------	------------------------

Other information	No further relevant information available.
--------------------------	--

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

LD/LC50 values that are relevant for classification:	
---	--

1310-58-3 potassium hydroxide		
--------------------------------------	--	--

Oral	LD50	273 mg/kg (rat)
------	------	-----------------

1310-73-2 sodium hydroxide		
-----------------------------------	--	--

Oral	LD50	2000 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**

- **on the skin:** Strong caustic effect on skin and mucous membranes.

- **on the eye:** Strong caustic effect.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Corrosive

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.

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

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

Trade name: LSR/30



(Contd. of page 6)

- **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.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Dispose of content and/or container in accordance with local, regional, national and/or international regulations.
- **Uncleaned packagings:**
- **Recommendation:**
Dispose of content and/or container in accordance with local, regional, national and/or international regulations
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|---|--|
| <ul style="list-style-type: none"> · UN-Number · DOT, IMDG, IATA | <p style="text-align: center;">UN1760</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · IMDG, IATA | <p style="text-align: center;">Corrosive liquids, n.o.s. (Potassium hydroxide)
CORROSIVE LIQUID, N.O.S. (POTASSIUM HYDROXIDE)</p> |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT | <div style="text-align: center;">  <p style="margin: 0;">CORROSIVE
8</p> </div> |
| <ul style="list-style-type: none"> · Class · Label | <p style="text-align: center;">8 Corrosive substances
8</p> |
| <ul style="list-style-type: none"> · IMDG, IATA | <div style="text-align: center;">  <p style="margin: 0;">CORROSIVE
8</p> </div> |
| <ul style="list-style-type: none"> · Class · Label | <p style="text-align: center;">8 Corrosive substances
8</p> |
| <ul style="list-style-type: none"> · Packing group · DOT, IMDG, IATA | <p style="text-align: center;">II</p> |

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

Trade name: LSR/30

(Contd. of page 7)

· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Alkalis
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN1760, Corrosive liquids, n.o.s. (Potassium hydroxide), 8, II

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

111-76-2 | 2-butoxyethanol

· 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)

111-76-2 | 2-butoxyethanol | NL

· TLV (Threshold Limit Value established by ACGIH)

111-76-2 | 2-butoxyethanol | A3

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

Trade name: LSR/30

(Contd. of page 8)

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS05

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

potassium hydroxide

sodium hydroxide

Nonylphenol ethoxylate

· **Hazard statements**

H227 Combustible liquid.

H314 Causes severe skin burns and eye damage.

· **Precautionary statements**

P210 Keep away from flames and hot surfaces. – No smoking.

P260 Do not breathe dusts or mists.

P280 Wear protective gloves / eye protection / face protection.

P264 Wash thoroughly after handling.

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.

P321 Specific treatment (see on this label).

P301+P312 **If swallowed:** Call a poison center/doctor if you feel unwell.

P304+P340 **IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P337+P313 **If eye irritation persists:** Get medical advice/attention.

P301+P330+P331 **If swallowed:** Rinse mouth. Do NOT induce vomiting.

P370+P378 **In case of fire:** Use for extinction: CO₂, powder or water spray.

P405 Store locked up.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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.

California AQMD Rule 1171 : Compliant

· **Department issuing SDS:** Environment protection department.

· **Contact:** Mr. Collins

· **Date of preparation / last revision** 08/06/2015 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

(Contd. on page 10)

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/06/2015

Reviewed on 05/19/2015

Trade name: LSR/30

(Contd. of page 9)

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. 4: Flammable liquids, Hazard Category 4
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

US