Safety Data Sheet according to (EC) No 1907/2006

SDS No. : 364353
V003.1

BONDERITE L-CA HKKS ACHESON known as HYDROKOLLAG KOKILLENSCHLICHTE

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
BONDERITE L-CA HKKS ACHESON known as HYDROKOLLAG KOKILLENSCHLICHTE

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Gravity die casting product

1.3. Details of the supplier of the safety data sheet
Henkel Ltd
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000
Fax-no.: +44 1442 278071

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):
The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2. Label elements

Label elements (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

Supplemental information Contains 1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine. May produce an allergic reaction.

2.3. Other hazards
None if used properly.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Base substances of preparation:
Aqueous solution of
Pigment

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Ammonium hydroxide in water 1336-21-6	215-647-6 01-2119488876-14	< 1 %	Met. Corr. 1 H290 Skin Corr. 1B H314 Aquatic Acute 1 H400
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	225-208-0 01-2119529226-41	0,01- 0,1 %	Acute Tox. 2; Inhalation - dust and mist H330 Acute Tox. 4 H302 Skin Sens. 1 H317 STOT RE 1 H372

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Move to fresh air, consult doctor if complaint persists.

Skin contact:
Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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
See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
Foam, extinguishing powder, carbon dioxide.
Water spray jet

Extinguishing media which must not be used for safety reasons:
None known

5.2. Special hazards arising from the substance or mixture
Non combustible - Danger of decomposition if exposed to heat.
Formation of toxic gases is possible during heating or in fires.

5.3. Advice for firefighters
Wear protective equipment.

Additional information:
In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid skin and eye contact.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
Remove with liquid-absorbing material (sand, peat, sawdust).
Wash away residue with plenty of water.
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid skin and eye contact.
Ensure that workrooms are adequately ventilated.
See advice in section 8

7.2. Conditions for safe storage, including any incompatibilities
Ensure good ventilation/extraction.
Avoid strictly temperatures below + 5 °C and above + 60 °C.
Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s)
Gravity die casting product

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Graphite 7782-42-5 [GRAPHITE, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Graphite 7782-42-5 [GRAPHITE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Ammonium hydroxide in water 1336-21-6	aqua (freshwater)					0,001 mg/L	
Ammonium hydroxide in water 1336-21-6	aqua (marine water)					0,001 mg/L	
Ammonium hydroxide in water 1336-21-6	aqua (intermittent releases)					0,0068 mg/L	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Ammonium hydroxide in water 1336-21-6	Workers	Dermal	Acute/short term exposure - systemic effects		6,8 mg/kg bw/day	
Ammonium hydroxide in water 1336-21-6	Workers	Dermal	Long term exposure - systemic effects		6,8 mg/kg bw/day	
Ammonium hydroxide in water 1336-21-6	Workers	Inhalation	Acute/short term exposure - systemic effects		47,6 mg/m3	
Ammonium hydroxide in water 1336-21-6	Workers	Inhalation	Acute/short term exposure - local effects		36 mg/m3	
Ammonium hydroxide in water 1336-21-6	Workers	Inhalation	Long term exposure - systemic effects		47,6 mg/m3	
Ammonium hydroxide in water 1336-21-6	Workers	Inhalation	Long term exposure - local effects		14 mg/m3	
Ammonium hydroxide in water 1336-21-6	general population	Dermal	Acute/short term exposure - systemic effects		68 mg/kg bw/day	
Ammonium hydroxide in water 1336-21-6	general population	Dermal	Long term exposure - systemic effects		68 mg/kg bw/day	
Ammonium hydroxide in water 1336-21-6	general population	Inhalation	Acute/short term exposure - systemic effects		23,8 mg/m3	
Ammonium hydroxide in water 1336-21-6	general population	Inhalation	Acute/short term exposure - local effects		7,2 mg/m3	
Ammonium hydroxide in water 1336-21-6	general population	Inhalation	Long term exposure - systemic effects		23,8 mg/m3	
Ammonium hydroxide in water 1336-21-6	general population	Inhalation	Long term exposure - local effects		2,8 mg/m3	
Ammonium hydroxide in water 1336-21-6	general population	oral	Acute/short term exposure - systemic effects		6,8 mg/kg bw/day	
Ammonium hydroxide in water 1336-21-6	general population	oral	Long term exposure - systemic effects		6,8 mg/kg bw/day	

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.

Respiratory protection:
In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter. This recommendation should be matched to local conditions.

Hand protection:
Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; >= 1 mm thickness) or natural rubber (NR; >=1 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Protective goggles

Skin protection:
Suitable protective clothing

SECTION 9: Physical and chemical properties

Odour threshold	No data available / Not applicable
pH (20 °C (68 °F); Conc.: 100 % product)	10,5 - 11,4
Initial boiling point	100 °C (212 °F)
Flash point	No flash point up to 100°C. Aqueous preparation.
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density (20 °C (68 °F))	1,03 g/cm3
Bulk density	No data available / Not applicable
Viscosity (Brookfield; Instrument: RVT; 20 °C (68 °F); speed of rotation: 20 min-1)	12.000 - 18.000 mPa.s
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Miscible
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
None if used for intended purpose.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
No decomposition if used according to specifications.

10.5. Incompatible materials
None if used properly.

10.6. Hazardous decomposition products
None if used for intended purpose.
In case of fire toxic gases can be released.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.
To the best of our knowledge no harmful effects are to be expected if the product is handled and used properly.

Skin irritation:
Prolonged or repeated contact may cause skin irritation.

Eye irritation:
Prolonged or repeated contact may cause eye irritation.

Sensitizing:
May cause allergic reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	LD50	1.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	LC50	0,371 mg/l			rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	sensitising	Open epicutaneous test	guinea pig	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	LOAEL=100 mg/kg	oral: gavage	12 weeksonce daily 5 times a week	rat	EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	NOAEL=30 mg/kg	oral: gavage	12 weeksonce daily 5 times a week	rat	EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4		inhalation: aerosol	6 hours per day, on 5 consecut	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)

SECTION 12: Ecological information

General ecological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.
Do not empty into drains / surface water / ground water.

Other adverse effects:
If acidic or alkaline products are discharged into wastewater installations care must be taken that the discharged wastewater has a pH in the range pH 6 - 10, as pH variations could cause disorders in wastewater channels and biological sewage treatment plants. The local discharge regulations take precedence.
Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Ammonium hydroxide in water 1336-21-6	LC50	0,16 - 1,1 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ammonium hydroxide in water 1336-21-6	EC50	25,4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ammonium hydroxide in water 1336-21-6	EC50	> 1.000 mg/l	Algae	72 h	Skeletonema costatum	ISO 10253 (Water quality)
	NOEC	1.000 mg/l	Algae	72 h	Skeletonema costatum	ISO 10253 (Water quality)
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	LC50	32 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	EC50	34 mg/l	Daphnia	24 h	Daphnia magna	
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	EC50	6,66 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	1,56 mg/l	Algae	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	readily biodegradable	aerobic	83 - 99 %	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	-2				24 °C	EU Method A.8 (Partition Coefficient)

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB

Ammonium hydroxide in water 1336-21-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
1,3,5-Tris(2-hydroxyethyl)hexahydro-1,3,5-triazine 4719-04-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

080120

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packaging group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

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

VOC content 0 %
(1999/13/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Great Britain):

Remarks	Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, e.g COSHH Essentials. EH40 Occupational Exposure Limits Chemicals (Hazard Information & Packaging for Supply) Regulations. The Personnel Protective Equipment at Work Regulations. The Carriage of Dangerous Goods by Road Regulations. The Health & Safety at Work Act 1974. (Note: Use latest editions/amendments of above referenced documents.)

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.

Further information:
This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Label elements (DPD):
Risk phrases:
Not applicable

Safety phrases:
Not applicable

Additional information:
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.

Additional labeling:
Safety data sheet available for professional user on request.

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.