SAFETY DATA SHEET

Saltidin® (KBR 3023) Produktion

saltigo
customized competence
A company of the LANXESS Group

04203194

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation

Product name	:	Saltidin® (KBR 3023) Produktion
Use of the substance/preparation	:	Insect repellent active ingredient
Supplier/Manufacturer	:	Saltigo GmbH 51369 Leverkusen, Germany Phone: +49 214 30 65109 Fax: +49 214 30 55787 E-mail: infosds@lanxess.com
Emergency telephone number	:	+49 214 30 99300 (Sicherheitszentrale CHEMPARK Leverkusen)

2. HAZARDS IDENTIFICATION

The product is not classified as dangerous according to Directive 67/548/EEC and its amendments.

See section 11 for more detailed information on health effects and symptoms.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Product definition (REACH) : Mono-constituent substance

sec-butyl 2-(2-hydroxyethyl)piperidine-1-carboxylate CAS No.: 119515-38-7 ELINCS No.: 423-210-8

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

4. FIRST AID MEASURES

First-aid measures

Inhalation : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Ingestion : Wash out mouth with water. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

See section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable : In case of fire, use water spray (fog), foam, dry chemical or CO_2.

Not suitable : None known.

Special exposure hazards : In a fire or if heated, a pressure increase will occur and the container may burst.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment (see section 8). Hazard of slipping on spilt product.

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. HANDLING AND STORAGE

Handling : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

Storage : Do not store above the following temperature: 60°C (140°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Packaging materials

Recommended : Use original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values : Not available.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Risk management measures

Occupational exposure controls

Technical measures : If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protection measures

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: Full mask with type ABEK filter

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations
<1 hours (breakthrough time): butyl rubber

Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: Safety glasses.

Skin protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls

Technical measures : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

Physical state : Liquid.

Important health, safety and environmental information

Boiling point : 272 °C (1013 hPa)

Flash point : Closed cup: 142°C (287.6°F) [DIN 51758]

Vapour pressure : 0 hPa (20°C)
0 hPa (25°C)
0 hPa (50°C)

Density : 1.0362 kg/L (20 °C)

Solubility : 8.6 g/l (water)

Octanol/water partition coefficient : 2.11 (OECD 107measured)

Viscosity	:	Dynamic: 129 mPa·s
Efflux time	:	31s
Ignition temperature:	:	375°C

10. STABILITY AND REACTIVITY

Stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Decomposition temperature	:	>270°C
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product/ingredient name	Result		Species	Dose	Exposure	Test
sec-butyl 2-(2-hydroxyethyl)piperidine-1-carboxylate	LD50 Dermal	-	Rat	>2000 mg/kg	-	-
	LD50 Oral	-	Rat	2236 mg/kg	-	-
	LC50 Inhalation Dusts and mists	-	Rat	>4.364 mg/L	4 hours	-

Irritation/Corrosion

Sensitiser

Product/ingredient name	Route of exposure	Species	Result	Test description
sec-butyl 2-(2-hydroxyethyl)piperidine-1-carboxylate	skin	Guinea pig	Not sensitizing	-

Remarks	:	Ames-test: negative Micronucleus test: no clastogenic effect.

12. ECOLOGICAL INFORMATION

Ecotoxicity data

Product/ingredient name	Test	Result	Species	Exposure

Product/ingredient name	Test	Result		Species	Exposure
sec-butyl 2-(2-hydroxyethyl)piperidine-1-carboxylate	-	Acute EC50 >100 mg/L	-	Daphnia - Daphnia magna	48 hours
	201 Alga, Growth Inhibition Test (biomass)	Acute IC50 87.3 mg/L	-	Algae - Desmodesmus subspicatus	72 hours
	201 Alga, Growth Inhibition Test (growth rate)	Acute IC50 71.5 mg/L	-	Algae - Desmodesmus subspicatus	72 hours
	-	Acute LC50 173 mg/L	-	Fish - Oncorhynchus mykiss	96 hours
	211 Daphnia Magna Reproduction Test	Chronic NOEC 50 mg/l	-	Daphnia - Daphnia magna	21 days

Other ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
sec-butyl 2-(2-hydroxyethyl)piperidine-1-carboxylate	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$		BCF	Potential
sec-butyl 2-(2-hydroxyethyl)piperidine-1-carboxylate	2.11	OECD 107measured	-	low

PBT : No.

vPvB : Not available.

Environmental effects : Not readily biodegradable. This product shows a low bioaccumulation potential.

Biodegradability/Elimination from the water:

Degradability : <1%

Acute bacterial toxicity (EC50) : 1110 mg/l (no statement)

Remarks : NOEC (32 d): 3.19 mg/l (Danio rerio)

13. DISPOSAL CONSIDERATIONS

Methods of disposal : Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

14. TRANSPORT INFORMATION

Regulation	UN number	Proper shipping name	Class	PG	Label	Additional information
ADR/RID	-	-	-	-	-	Not regulated.
GGVSE	-	-	-	-	-	Not regulated.
ADNR	-	-	-	-	-	Not regulated.
IMDG	-	-	-	-	-	Not regulated.
IATA	-	-	-	-	-	Not regulated.

PG: Packing group

Not dangerous cargo.
Keep dry.
Keep separated from foodstuffs.

15. REGULATORY INFORMATION

EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Industrial applications.

Risk phrases : This product is not classified according to EU legislation.

16. OTHER INFORMATION

History

Date of printing : **2009-08-04**
Date of issue : **2009-08-04**
Date of previous issue : **2009-07-07**
Version : **5.01**

◤ **Indicates information that has changed from previously issued version.**

Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance.