

## SAFETY DATA SHEET LOTOXANE

According to Regulation (EC) No 1907/2006, Annex II, as amended.

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

## 1.1. Product identifier

Product name **LOTOXANE** 

Chemical name Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

Internal identification

Synonyms; trade names ISOPARAFFINIC HYDROCARBON

**REACH registration number** 01-2119456810-40-XXXX

CAS number 90622-58-5

**EC** number 920-901-0

## 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Cleaning agent.

Uses advised against Use only for intended applications.

## 1.3. Details of the supplier of the safety data sheet

Supplier **ARROW SOLUTIONS** 

RAWDON ROAD,

MOIRA,

SWADLINCOTE, DERBYSHIRE, DE12 6DA, **ENGLAND** 

TEL: +44 (0)1283 221044 FAX: +44 (0)1283 225731 sales@arrowchem.com

## 1.4. Emergency telephone number

**Emergency telephone** +44 (0) 777 8505 330 (24 hrs).

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Asp. Tox. 1 - H304

**Environmental hazards** Not Classified

2.2. Label elements

**EC** number 920-901-0

#### **LOTOXANE**

#### Hazard pictograms



Signal word Danger

**Hazard statements** H304 May be fatal if swallowed and enters airways.

**Precautionary statements** P280 Wear protective gloves.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P310 Immediately call a POISON CENTER/ doctor.

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

Supplemental label

information

EUH066 Repeated exposure may cause skin dryness or cracking.

#### 2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

## SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Product name LOTOXANE

Chemical name Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

REACH registration number 01-2119456810-40-XXXX

**CAS number** 90622-58-5 **EC number** 920-901-0

## SECTION 4: First aid measures

## 4.1. Description of first aid measures

General information Show this Safety Data Sheet to the medical personnel. If medical advice is needed, have

product container or label at hand. Get medical attention immediately.

**Inhalation** Move affected person to fresh air and keep warm and at rest in a position comfortable for

breathing.

**Ingestion** Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention.

**Skin contact** Wash skin thoroughly with soap and water. Use suitable lotion to moisturise skin.

Eye contact Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do.

Continue rinsing. Get medical attention if any discomfort continues.

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

**Inhalation** Vapours may cause headache, fatigue, dizziness and nausea.

**Ingestion** Aspiration hazard if swallowed. May be fatal if swallowed and enters airways.

**Skin contact** Repeated exposure may cause skin dryness or cracking.

**Eye contact** May cause discomfort.

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

Notes for the doctor Treat symptomatically.

## SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media Use alcohol-resistant foam, carbon dioxide or dry powder to extinguish.

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

Specific hazards Combustible liquid.

Hazardous combustion

products

Thermal decomposition or combustion products may include the following substances:

Carbon monoxide (CO). Carbon dioxide (CO2).

#### 5.3. Advice for firefighters

Protective actions during

firefighting

Cool containers exposed to flames with water until well after the fire is out.

## SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### Personal precautions

Ensure procedures and training for emergency decontamination and disposal are in place. No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Evacuate area. No smoking, sparks, flames or other sources of ignition near spillage. Take precautionary measures against static discharges. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with skin, eyes and clothing. Provide adequate ventilation. Do not touch or walk into spilled material. Avoid contact with contaminated tools and objects. Do not handle broken packages without protective equipment. Take care as floors and other surfaces may become slippery. Wash thoroughly after dealing with a spillage.

#### 6.2. Environmental precautions

**Environmental precautions** 

Do not discharge into drains or watercourses or onto the ground.

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

#### Methods for cleaning up

Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Eliminate all ignition sources if safe to do so. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Clean contaminated objects and areas thoroughly, observing environmental regulations. Wash thoroughly after dealing with a spillage.

#### 6.4. Reference to other sections

Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

#### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

## Usage precautions

Observe any occupational exposure limits for the product or ingredients. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Eliminate all sources of ignition. Provide adequate ventilation. Wear protective gloves. Avoid contact with skin, eyes and clothing. Avoid breathing vapours. Avoid release to the environment. Do not empty into drains. Do not reuse empty containers. Do not eat, drink or smoke when using this product. Avoid contact with contaminated tools and objects. Do not handle broken packages without protective equipment. Wash skin thoroughly after handling.

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

#### Storage precautions

Store at temperatures between 4°C and 40°C. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage class Miscellaneous hazardous material storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

#### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

#### Occupational exposure limits

Long-term exposure limit (8-hour TWA): WEL 171 ppm 1200 mg/m³ vapour

WEL = Workplace Exposure Limit.

Ingredient comments

This substance is a UVCB and conventional methods of defining DNEL and PNEC are not appropriate.

#### 8.2. Exposure controls

#### Protective equipment







Appropriate engineering controls

Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. The following protection should be worn: Tight-fitting safety glasses.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 4 hours. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. The breakthrough time for any glove material may be different for different glove manufacturers. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. Protective gloves should have a minimum thickness of 0.15 mm. Glove thickness is not necessarily a good measure of glove resistance as the permeation rate will depend on the exact glove composition. For work of short duration or where a high degree of manual dexterity is needed, use protective gloves made of: Nitrile rubber. Thickness: > 0.2 mm Chloroprene rubber. Thickness: > 0.7 mm Polyvinyl chloride (PVC). The choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Repeated exposure to chemicals will degrade the ability of the glove to provide resistance to chemicals. Specific work environments and material handling practices may vary, therefore safety procedures should be developed for each intended application.

Hygiene measures

Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

#### Respiratory protection No specific requirements are anticipated under normal conditions of use. Respiratory

protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. If ventilation is inadequate, suitable respiratory protection must be worn. Check that the respirator fits tightly and the filter is changed regularly. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Disposable filtering half mask respirators should comply with European Standard EN149 or EN405. Gas and combination filter cartridges should comply with European Standard EN14387. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P2. Organic vapour + dust and mist filter.

Environmental exposure controls

Store in a demarcated bunded area to prevent release to drains and/or watercourses. Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

#### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Appearance Clear liquid.

Colour Colourless.

Odour Almost odourless.

**pH** Not applicable.

Melting point Not known.

Initial boiling point and range >185°C @ 760 mm Hg

Flash point ≥ 62°C Pensky-Martens closed cup.

**Evaporation rate** ~ 0.04 (butyl acetate = 1)

Flammability (solid, gas) Not applicable.

Upper/lower flammability or

explosive limits

Upper flammable/explosive limit: 7.0 Lower flammable/explosive limit: 0.60

Other flammability Not applicable.

Vapour pressure ~ 0.04 kPa @ 20°C

Relative density ~ 0.77 @ 20°C

Solubility(ies) Insoluble in water.

Partition coefficient Not determined.

Auto-ignition temperature Not determined.

**Decomposition Temperature** Not applicable.

Viscosity  $\sim 1.75 \text{ m}^2\text{/s} \otimes 20^{\circ}\text{C}$ 

**Explosive properties**There are no chemical groups present in the product that are associated with explosive

properties.

Oxidising properties There are no chemical groups present in the product that are associated with oxidising

properties.

#### **LOTOXANE**

Comments Information declared as "Not available" or "Not applicable" is not considered to be relevant to

the implementation of the proper control measures.

9.2. Other information

Volatile organic compound This product contains a maximum VOC content of 786 g/litre. EU: (cat B/e): 840 g/l 2007.

#### SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous

reactions

products

Not determined.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a

hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition

Thermal decomposition or combustion products may include the following substances:

Carbon monoxide (CO). Carbon dioxide (CO2).

#### SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD50) LD<sub>50</sub> >5000 mg/kg, Oral, Rat Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅o >5000 mg/kg, Dermal, Rabbit Based on available data the classification criteria are not

met.

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀

vapours mg/l)

5,001.0

**Species** Rat

Notes (inhalation LC50) LD₅o >5000 mg/m³, Inhalation, Rat Based on available data the classification criteria are not

met.

ATE inhalation (vapours mg/l) 5,001.0

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

#### **LOTOXANE**

Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

Germ cell mutagenicity

**Genotoxicity - in vitro**Based on available data the classification criteria are not met.

Carcinogenicity

**Carcinogenicity** There is no evidence that the product can cause cancer.

Reproductive toxicity

**Reproductive toxicity - fertility** This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways. Kinematic viscosity ≤ 20.5 mm²/s.

**Inhalation** Vapours may cause headache, fatigue, dizziness and nausea.

**Ingestion** Aspiration hazard if swallowed. May be fatal if swallowed and enters airways.

Defatting, drying and cracking of skin. Pneumonia may be the result if vomited material

**Skin contact** Repeated exposure may cause skin dryness or cracking.

Eye contact May cause discomfort.

Acute and chronic health

hazards

containing solvents reaches the lungs.

Inhalation Dermal

Route of exposure

Lungs Skin Nervous system

Medical symptoms Dry skin. Dryness and/or cracking.

SECTION 12: Ecological information

**Ecotoxicity** Not regarded as dangerous for the environment.

12.1. Toxicity

**Target organs** 

Acute aquatic toxicity

Acute toxicity - fish LL<sub>50</sub>, 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout)

Chronic aquatic toxicity

Chronic toxicity - fish early life Not available.

stage

12.2. Persistence and degradability

Persistence and degradability The product is expected to be biodegradable.

Not determined.

12.3. Bioaccumulative potential

Bioaccumulative potential Not determined.

Partition coefficient

12.4. Mobility in soil

#### **LOTOXANE**

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all

surfaces.

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

Results of PBT and vPvB

This substance is not classified as PBT or vPvB according to current EU criteria.

assessment

12.6. Other adverse effects

Other adverse effects Not determined.

## SECTION 13: Disposal considerations

## 13.1. Waste treatment methods

**Disposal methods**Disposal of this product, process solutions, residues and by-products should at all times

comply with the requirements of environmental protection and waste disposal legislation and

any local authority requirements.

#### SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods

(IMDG, IATA, ADR/RID).

#### Special Provisions note

#### 14.1. UN number

Not applicable.

## 14.2. UN proper shipping name

Not applicable.

## 14.3. Transport hazard class(es)

No transport warning sign required.

## 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

## 14.6. Special precautions for user

Not applicable.

## 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

## SECTION 15: Regulatory information

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

National regulations Control of Substances Hazardous to Health Regulations 2002 (as amended).

## **LOTOXANE**

**EU legislation** Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18

December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of

Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as

amended).

Guidance Workplace Exposure Limits EH40.

## 15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

#### **Inventories**

#### **EU - EINECS/ELINCS**

Present.

## Canada - DSL/NDSL

DSI

#### **US-TSCA**

All the ingredients are listed or exempt.

#### Australia - AICS

All the ingredients are listed or exempt.

## Japan - ENCS

All the ingredients are listed or exempt.

#### Korea - KECI

All the ingredients are listed or exempt.

#### China - IECSC

All the ingredients are listed or exempt.

## Philippines - PICCS

All the ingredients are listed or exempt.

#### Taiwan - TCSI

All the ingredients are listed or exempt.

#### **SECTION 16: Other information**

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by

Road.

CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level.

IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods.

LD₅o: Lethal Dose to 50% of a test population (Median Lethal Dose).

PBT: Persistent, Bioaccumulative and Toxic substance.

PNEC: Predicted No Effect Concentration.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation

(EC) No 1907/2006. UN: United Nations.

vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations

and acronyms

Asp. Tox. = Aspiration hazard

Classification procedures

according to Regulation (EC)

1272/2008

Asp. Tox. 1 - H304: On basis of test data.

**Revision comments** NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 10/06/2021

Revision 3.4

Supersedes date 18/07/2019

SDS number 21513

Hazard statements in full H304 May be fatal if swallowed and enters airways.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



# Exposure scenario USE IN CLEANING AGENTS - INDUSTRIAL

## Identification

Product name LOTOXANE

REACH registration number 01-2119456810-40-XXXX

**EC number** 920-901-0

Revision date 12/06/2018

Version number 1.1

Es reference LOTOXANE

Supplier ARROW SOLUTIONS

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## 1. Title of exposure scenario

Main title USE IN CLEANING AGENTS - INDUSTRIAL

**Process scope**Covers the use as a component of cleaning products, including transfer from storage,

pouring/unloading from drums or containers and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping,

automated and by hand), related equipment cleaning and maintenance.

Technical functions Cleaning agent

Main sector SU3 Industrial uses

SU22 Professional uses

Sector of use SU3 Industrial uses

SU22 Professional uses

**Environment** 

Cleaning

**Life cycle stage**Use at industrial site

Widespread use by professional workers

## **USE IN CLEANING AGENTS - INDUSTRIAL**

Environmental release

category

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article,

indoor)

ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article,

outdoor)

Worker

Cleaning

Life cycle stage

Use at industrial site

Widespread use by professional workers

**Process category** 

PROC1 Chemical production or refinery in closed process without likelihood of exposure or

processes with equivalent containment conditions

PROC10 Roller application or brushing

PROC13 Treatment of articles by dipping and pouring. PROC19 Manual activities involving hand contact

PROC2 Chemical production or refinery in closed continuous process with occasional

controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with

occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC7 Industrial spraying

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated

facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

## 2. Conditions of use affecting exposure (Industrial - Environment 1)

#### Control of environmental exposure

Environmental release

category

category

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

**Product characteristics** 

Physical state Liquid, vapour pressure < 0.5 kPa at STP

## 2. Conditions of use affecting exposure (Industrial - Environment 2)

#### Control of environmental exposure

Environmental release

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article,

indoor)

ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article,

outdoor)

**Product characteristics** 

Physical state Liquid, vapour pressure < 0.5 kPa at STP

#### 2. Conditions of use affecting exposure (Workers - Health 1)

#### Control of workers exposure

#### **USE IN CLEANING AGENTS - INDUSTRIAL**

PROC1 Chemical production or refinery in closed process without likelihood of exposure or

processes with equivalent containment conditions

PROC10 Roller application or brushing

PROC13 Treatment of articles by dipping and pouring.

PROC2 Chemical production or refinery in closed continuous process with occasional

controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with

occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC7 Industrial spraying

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated

facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Product characteristics

Physical state Liquid, vapour pressure < 0.5 kPa at STP

Kinematic viscosity <20.5 m²/s @ 40°C

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Covers percentage substance in the product up to 100% (unless stated differently).

Risk management measures

Assumes a good basic standard of occupational hygiene is implemented.

## 2. Conditions of use affecting exposure (Workers - Health 2)

#### Control of workers exposure

Process category PROC1 Chemical production or refinery in closed process without likelihood of exposure or

processes with equivalent containment conditions

PROC10 Roller application or brushing PROC11 Non industrial spraying

PROC13 Treatment of articles by dipping and pouring. PROC19 Manual activities involving hand contact

PROC2 Chemical production or refinery in closed continuous process with occasional

controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with

occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated

facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

Product characteristics

Physical state Liquid, vapour pressure < 0.5 kPa at STP

Kinematic viscosity <20.5 m<sup>2</sup>/s @ 40°C

Frequency and duration of use

Covers daily exposures up to 8 hours (unless stated differently).

Covers percentage substance in the product up to 100% (unless stated differently).

Risk management measures

Assumes a good basic standard of occupational hygiene is implemented.

# **USE IN CLEANING AGENTS - INDUSTRIAL**