SAFETY DATA SHEET
ARMOURGARD

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

1.1. Product identifier
Product name          ARMOURGARD
Internal identification L5374

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses        Polish.
Uses advised against   Use only for intended applications.

1.3. Details of the supplier of the safety data sheet
Supplier               GARDX INTERNATIONAL LTD
                        UNIT 7 CLOVELLY BUSINESS PARK
                        CLOVELLY ROAD
                        SOUTHBOURNE, EMSWORTH
                        HANTS
                        PO10 8PE
                        +44 (0)1243 376426
                        product@gardx.co.uk

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards        Flam. Liq. 3 - H226
Health hazards           STOT SE 3 - H336 STOT RE 1 - H372
Environmental hazards    Aquatic Chronic 2 - H411

2.2. Label elements
Hazard pictograms
   ![Flammable Liquid](image)
   ![Danger](image)
   ![Health Hazard](image)

Signal word            Danger
Hazard statements       EUH208 Contains METHYL-2H or METHYL-4 (3:1) Mixture of EC NO 220-239-6. May produce an allergic reaction.
                        H226 Flammable liquid and vapour.
                        H336 May cause drowsiness or dizziness.
                        H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure.
                        H411 Toxic to aquatic life with long lasting effects.
**ARMOURGARD**

**Precautionary statements**
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260 Do not breathe vapour/ spray.
- P273 Avoid release to the environment.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTRE/doctor if you feel unwell.
- P501 Dispose of contents/ container in accordance with national regulations.
- P280 Wear protective gloves.

**Supplemental label information**
- EUH066 Repeated exposure may cause skin dryness or cracking.

**Contains**
- Naphtha (petroleum), hydrodesulfurized heavy

### 2.3. Other hazards
This product does not contain any substances classified as PBT or vPvB.

**SECTION 3: Composition/information on ingredients**

<table>
<thead>
<tr>
<th><strong>3.2. Mixtures</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Naphtha (petroleum), hydrodesulfurized heavy</strong></td>
</tr>
<tr>
<td>CAS number: 64742-82-1</td>
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<td><strong>Classification</strong></td>
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<td>Asp. Tox. 1 - H304</td>
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<td>Aquatic Chronic 2 - H411</td>
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<tr>
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<td>CAS number: 21645-51-2</td>
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<tr>
<td><strong>Classification</strong></td>
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<tr>
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<table>
<thead>
<tr>
<th><strong>ALUMINIUM SILICATE</strong></th>
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<tr>
<td>CAS number: 1332-58-7</td>
</tr>
<tr>
<td><strong>Classification</strong></td>
</tr>
<tr>
<td>Not Classified</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Show this Safety Data Sheet to the medical personnel.

Inhalation
Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.

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

Skin contact
Wash skin thoroughly with soap and water.

Eye contact
Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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

Inhalation
May cause drowsiness or dizziness.

Ingestion
May cause discomfort if swallowed.

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
Extinguish with the following media: Foam, carbon dioxide or dry powder.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards
Flammable liquid and vapour.

Hazardous combustion products
Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO).

5.3. Advice for firefighters

Protective actions during firefighting
Containers close to fire should be removed or cooled with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not touch or walk into spilled material. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours. Provide adequate ventilation. Take care as floors and other surfaces may become slippery. Avoid contact with contaminated tools and objects. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions

Environmental precautions
Toxic to aquatic life with long lasting effects. 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 sources of ignition. Provide adequate ventilation. Contain and absorb spillage with sand, earth or other non-combustible material. 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. 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
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Provide adequate ventilation. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Do not eat, drink or smoke when using this product. Do not reuse empty containers. Do not empty into drains. Wash skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities
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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
Flammable liquid storage.

7.3. 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
Naphtha (petroleum), hydrodesulfurized heavy
Long-term exposure limit (8-hour TWA): WEL 350 mg/m³

ALUMINIUM HYDROXIDE
Long-term exposure limit (8-hour TWA): 8 mg/m³ inhalable dust
Long-term exposure limit (8-hour TWA): 4 mg/m³ respirable dust

ALUMINIUM SILICATE
Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust
Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

WEL = Workplace Exposure Limit

Naphtha (petroleum), hydrodesulfurized heavy (CAS: 64742-82-1)
DNEL
Workers - Inhalation; Long term systemic effects: 330 mg/m³
Workers - Dermal; Long term systemic effects: 44 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 71 mg/m³
Consumer - Dermal; Long term systemic effects: 26 mg/kg/day
Consumer - Oral; Long term systemic effects: 26 mg/kg/day

ALUMINIUM HYDROXIDE (CAS: 21645-51-2)
DNEL
Workers - Inhalation; Long term local effects: 3.0 mg/m³
Consumer - Oral; Long term systemic effects: 6.85 mg/kg/day

PNEC
STP; 20 mg/l

8.2. Exposure controls
Protective equipment

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

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. 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. The breakthrough time for any glove material may be different for different glove manufacturers. When used with mixtures, the protection time of gloves cannot be accurately estimated. 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. 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 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. Gloves made from the following material may provide suitable chemical protection: Nitrile rubber. Neoprene.

Hygiene measures

Wash hands thoroughly after handling.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Creamy liquid.

Colour

Light (or pale). Yellow.

Odour

Pleasant, agreeable.

pH

Not applicable.

Flash point

40°C Setaflash closed cup.

Relative density

0.955 @ 25°C

Solubility(ies)

Insoluble in water.

Viscosity

25000 cP @ 25°C

9.2. Other information

Other information

Not determined.

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

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

Keep away from flammable and combustible materials.
10.6. Hazardous decomposition products

Hazardous decomposition products
Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation
May cause drowsiness or dizziness.

Ingestion
May cause discomfort if swallowed.

Skin contact
Repeated exposure may cause skin dryness or cracking.

Eye contact
May cause discomfort.

Toxicological information on ingredients.

Naphtha (petroleum), hydrodesulfurized heavy

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 1056 mg/kg, Oral, Rat

Target organs Central nervous system

ALUMINIUM HYDROXIDE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,000.01

Species Rat

ATE oral (mg/kg) 2,000.01

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 7.6

Species Rat

ATE inhalation (dusts/mists mg/l) 7.6

3-IODO-2-PROPYNYL BUTYLCARBamate

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 300.0

Species Rat

ATE oral (mg/kg) 300.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rat
ARMOURGARD

ATE dermal (mg/kg) 2,000.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 11.0

**METHYL-2H or METHYL-4 (3:1) Mixture of EC NO 220-239-6**

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 53.0

Species Rat

Notes (oral LD₅₀) Estimated value.

ATE oral (mg/kg) 53.0

Acute toxicity - dermal

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 3.0

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Sensitising.

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish Not determined.

Ecological information on ingredients.

**Naphtha (petroleum), hydrodesulfurized heavy**

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: <30 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: <22 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 4.6-10 mg/l, Algae

Acute toxicity - microorganisms EC₅₀, 48 hours: 43.98 mg/l,

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 0.097 mg/l, Daphnia magna

**ALUMINIUM HYDROXIDE**
ARMOURGARD

Acute toxicity - fish
LC₅₀, 96 hour: 10001 mg/l, Fish

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hour: 10001 mg/l, Daphnia magna

3-IODO-2-PROPYNYL BUTYL CARBAMATE

Acute aquatic toxicity
LE(C)₅₀ 0.01 < L(E)C50 ≤ 0.1
M factor (Acute) 10

METHYL-2H or METHYL-4 (3:1) Mixture of EC NO 220-239-6

Acute aquatic toxicity
LE(C)₅₀ 0.001 < L(E)C50 ≤ 0.01
M factor (Acute) 100

Acute toxicity - fish
Estimated value.
LC₅₀, 96 hours: 13 mg/l, Fish

Chronic aquatic toxicity
NOEC 0.0001 < NOEC ≤ 0.001
Degradability Non-rapidly degradable
M factor (Chronic) 100

12.2. Persistence and degradability
Persistence and degradability The product is expected to be biodegradable.

12.3. Bioaccumulative potential
Bioaccumulative potential The product is not bioaccumulating.

12.4. Mobility in soil
Mobility The product has poor water-solubility.

12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

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 For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

Special Provisions note
ARMOURGARD

14.1. UN number
UN No. (ADR/RID) 1993
UN No. (IMDG) 1993
UN No. (ICAO) 1993

14.2. UN proper shipping name
Proper shipping name (ADR/RID) FLAMMABLE LIQUID, N.O.S. (petroleum distillate)
Proper shipping name (IMDG) FLAMMABLE LIQUID, N.O.S. (petroleum distillate)
Proper shipping name (ICAO) FLAMMABLE LIQUID, N.O.S. (petroleum distillate)

14.3. Transport hazard class(es)
ADR/RID class 3
IMDG class 3
ICAO class/division 3

14.4. Packing group
ADR/RID packing group III
IMDG packing group III
ICAO packing group III

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user
Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
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
National regulations Control of Substances Hazardous to Health Regulations 2002 (as amended).
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Guidance  Workplace Exposure Limits EH40.

15.2. Chemical safety assessment
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.
GHS: Globally Harmonized System.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
vPvB: Very Persistent and Very Bioaccumulative.
EC₅₀: 50% of maximal Effective Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
UN: United Nations.

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Asp. Tox. = Aspiration hazard
Eye Dam. = Serious eye damage
Flam. Liq. = Flammable liquid
Skin Corr. = Skin corrosion
Skin Sens. = Skin sensitisation
STOT RE = Specific target organ toxicity-repeated exposure
STOT SE = Specific target organ toxicity-single exposure

Revision comments

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

Revision date 23/05/2019
Revision 3.6
Supersedes date 13/03/2019
SDS number 25565
ARMOURGARD

Hazard statements in full

H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains METHYL-2H or METHYL-4 (3:1) Mixture of EC NO 220-239-6. May produce an allergic reaction.

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.