



SAFETY DATA SHEET

SAPHIR

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

1.1 Product identifier

Product name : SAPHIR
Product description : Not available.
Product type : Liquid.
Other means of identification : UFI : G800-X01S-8007-40S5

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

| Identified uses |
|-----------------|
| solution |

1.3 Details of the supplier of the safety data sheet

Supplier : Manufacture Française des Pneumatiques Michelin (MFPM)
23, place des Carmes Déchaux
63040 Clermont-Ferrand Cedex 9
+33 (0)4 73 32 20 00

e-mail address of person responsible for this SDS : compte-fonction.compte-fonction-fds@michelin.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : +33 (0)1 45 42 59 59 (INRS)
France

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225

Skin Irrit. 2, H315

STOT SE 3, H336

Asp. Tox. 1, H304

Aquatic Acute 1, H400

Aquatic Chronic 1, H410

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms :

Signal word :

Danger

Hazard statements :

 H225 - Highly flammable liquid and vapour.
 H315 - Causes skin irritation.
 H304 - May be fatal if swallowed and enters airways.
 H336 - May cause drowsiness or dizziness.
 H410 - Very toxic to aquatic life with long lasting effects.
 H400 - Very toxic to aquatic life.

Precautionary statements
Prevention :

 P280 - Wear protective gloves: 4 - 8 hours (breakthrough time): Nitrile gloves. or polyvinyl alcohol (PVA) -EN374- Recommended.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 - Keep container tightly closed.

Response :

 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.
 P303 + P361 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Storage :

P404 - Store in a closed container.

Disposal :

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients :

cyclohexane

Special packaging requirements
Tactile warning of danger : Not applicable.

2.3 Other hazards
Other hazards which do not result in classification :

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures :

Mixture

Chemical Nature :

Solution of elastomer and mixed hydrocarbons.

| Product/ingredient name | Identifiers | % | Classification Regulation (EC) No. 1272/2008 [CLP] | Type |
|----------------------------|----------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| cyclohexane | REACH #: 01-2119463273-41 EC: 203-806-2 CAS: 110-82-7 Index: 601-017-00-1 | 80 - 95 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) | [1] [2] |
| 1,3-Butadiene, homopolymer | CAS: 9003-17-2 | 0 - 7.8 | Aquatic Chronic 3, H412 | [1] |
| zinc oxide | REACH #: 01-2119463881-32 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7 | 0 - 0.13 | Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) | [1] [2] |

SECTION 3: Composition/information on ingredients

| | | | | |
|--|--|--|----------------------------------------------------------------------|--|
| | | | See Section 16 for the full text of the H statements declared above. | |
|--|--|--|----------------------------------------------------------------------|--|

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Inhalation** : Evacuate personnel from affected area. Get medical attention. If unconscious, place in recovery position and get medical attention immediately.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. Get medical attention immediately. If unconscious, place in recovery position and get medical attention immediately.
- Skin contact** : Remove contaminated clothing and shoes. Flush contaminated skin with plenty of water. Continue to rinse for at least 10 minutes. Get medical attention.
- 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.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following: nausea or vomiting headache
drowsiness/fatigue dizziness/vertigo unconsciousness
- Skin contact** : Adverse symptoms may include the following: irritation redness
- Ingestion** : Adverse symptoms may include the following: nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : 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.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Highly flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : In the case of fire, evacuate all personnel close to the incident site. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material.

For emergency responders : For specific clothing and equipment necessary to treat discharge, consult section 8.

6.2 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

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

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 6: Accidental release measures

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. Consult the list of the identified uses of section 1 for information specific to the uses available in the exposure scenario(s), when available.

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities : 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. Provide a retention container, ensure it has sufficient capacity. Packing materials to be avoided - plastic material that is not resistant to hydrocarbons. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers.

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria

| Category | Notification and MAPP threshold | Safety report threshold |
|-----------------------------------------------------------------|---------------------------------|-------------------------|
| P5c: Flammable liquids 2 and 3 not falling under P5a or P5b | 5000 | 50000 |
| E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1 | 100 | 200 |
| C7b: Highly flammable (R11) | 5000 | 50000 |
| C9i: Very toxic for the environment | 100 | 200 |

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Refer to the SUI in the annex of the SDS.

SECTION 8: Exposure controls/personal protection

Consult the list of the identified uses of section 1 for information specific to the uses available in the exposure scenario(s), when available.

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cyclohexane | Ministère du travail (France, 7/2012). Notes: Labour Act , Art 4412-149 (Regulatory binding exposure limits) STEL: 1300 mg/m ³ 15 minutes. STEL: 375 ppm 15 minutes. TWA: 700 mg/m ³ 8 hours. TWA: 200 ppm 8 hours. |
| zinc oxide | Ministère du travail (France, 7/2012). Notes: Ministry of Labour (Brochure INRS Ed 984, July 2012). Indicative exposure limits |

SECTION 8: Exposure controls/personal protectionTWA: 10 mg/m³ 8 hours. Form: dustTWA: 5 mg/m³ 8 hours. Form: fume

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 monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DELs available.

PNECs

No PECs available.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Refer to the SUI, if available, for further information

Individual protection measures

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. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Recommended: safety glasses with side-shields or Safety goggles. -EN166- Refer to the SUI, if available, for further information

Skin protection

Hand protection : 4 - 8 hours (breakthrough time): Nitrile gloves. or polyvinyl alcohol (PVA) -EN374- Recommended Refer to the SUI, if available, for further information

Body protection : Personal protective equipment for the body should be selected according to the risks associated with the task.

Respiratory protection : Recommended: organic vapour filter (Type A) - EN14387+A1- Refer to the SUI, if available, for further information

Environmental exposure controls : Ensure that the specific limits for discharges comply with the regulations.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

Physical state : Liquid.

Colour : White to yellowish.

Odour : Characteristic.

Odour threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range : 77.8°C (172°F)

SECTION 9: Physical and chemical properties

| | |
|--------------------------------------------|-----------------------------------------|
| Flash point | : -20°C (-4°F) |
| Evaporation rate | : Not available. |
| Flammability (solid, gas) | : Not available. |
| Burning time | : Not applicable. |
| Burning rate | : Not applicable. |
| Vapour pressure | : 14 kPa (105 mm Hg) (cyclohexane) |
| Vapour density | : >1 [Air = 1] |
| Relative density | : 0.8 |
| Solubility(ies) | : Not available. |
| Partition coefficient: n-octanol/ water | : Not available. |
| Auto-ignition temperature | : 269.85°C (517.7°F) (cyclohexane) |
| U.E.L. | : 8.4% (cyclohexane) |
| L.E.L. | : 1.3% (cyclohexane) |
| Decomposition temperature | : Not available. |
| Viscosity at 40°C | : <0.205 cm ² /s (<20.5 cSt) |
| Explosive properties | : Not available. |
| Oxidising properties | : Not available. |

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

| | |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1 Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
| 10.2 Chemical stability | : At ambient temperature, the product releases vapours which form an explosive mix with air. |
| 10.3 Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas. |
| 10.5 Incompatible materials | : Reactive or incompatible with the following materials: acids; oxidising agents; oxidizing materials ; |
| 10.6 Hazardous decomposition products | : In the case of a thermal decomposition, the production of carbon monoxide, soot, aldehydes and hydrocarbons can occur. |

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Conclusion/Summary : Not available.

Acute toxicity estimates

| Route | ATE value |
|----------------|-----------|
| Not available. | |

Irritation/Corrosion

Conclusion/Summary : Not available.

SECTION 11: Toxicological information**Sensitisation**

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|------------------|
| cyclohexane | Category 3 | Not applicable. | Narcotic effects |

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

| Product/ingredient name | Result |
|-------------------------|--------------------------------|
| cyclohexane | ASPIRATION HAZARD - Category 1 |

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following: nausea or vomiting headache
drowsiness/fatigue dizziness/vertigo unconsciousness

Skin contact : Adverse symptoms may include the following: irritation redness

Ingestion : Adverse symptoms may include the following: nausea or vomiting

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Short term exposure**

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

SECTION 11: Toxicological information

| | |
|------------------------------|-------------------|
| Conclusion/Summary | : Not available. |
| General | : None available. |
| Carcinogenicity | : None available. |
| Mutagenicity | : None available. |
| Teratogenicity | : None available. |
| Developmental effects | : None available. |
| Fertility effects | : None available. |

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Not available. | | | |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. Consult the list of the identified uses of section 1 for information specific to the uses available in the exposure scenario(s), when available.

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Hazardous waste : This product is classified as hazardous according to EU regulations.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 13: Disposal considerations

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14.1 UN number | UN1287 | UN1287 | UN1287 | UN1287 |
| 14.2 UN proper shipping name | RUBBER SOLUTION | RUBBER SOLUTION | RUBBER SOLUTION. Marine pollutant | Rubber solution |
| 14.3 Transport hazard class(es) | 3 | 3 | 3 | 3 |
| 14.4 Packing group | II | II | II | II |
| 14.5 Environmental hazards | Yes. | Yes. | Yes. | Yes. |
| Additional information | <p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p>Hazard identification number 33</p> <p>Limited quantity LQ6</p> <p>Special provisions 640D</p> | <p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p>Special provisions 640D</p> | <p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p>Emergency schedules (EmS) F-E, S-D</p> <p>Special provisions 944</p> | <p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p> <p>Passenger and Cargo Aircraft Quantity limitation: 5 L Packaging instructions: 305</p> <p>Cargo Aircraft Only Quantity limitation: 60 L Packaging instructions: 307</p> <p>Limited Quantities - Passenger Aircraft Quantity limitation: 1 L Packaging instructions: Y305</p> <p>Special provisions A3</p> |

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 14: Transport information

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Black List Chemicals : Not listed

Priority List Chemicals : Not listed.

Integrated pollution prevention and control list (IED) - Air : Not listed

Integrated pollution prevention and control list (IED) - Water : Not listed

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P5c: Flammable liquids 2 and 3 not falling under P5a or P5b
 E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1
 C7b: Highly flammable (R11)
 C9i: Very toxic for the environment

National regulations

Social Security Code, Articles L 461-1 to L 461-7 : cyclohexane RG 84

Reinforced medical surveillance : Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable

Remark : (dibutylamine)bis(dibutyldithiocarbamate-s,s')zinc : RG 65
 5-di-tert-pentylhydroquinone : RG 65
 RG 84 2, ethanol :

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

SECTION 15: Regulatory information

Not listed.

International lists**National inventory**

| | |
|--------------------------|------------------------------------------------------------------------------------------------------|
| Australia | : Not determined. |
| Canada | : Not determined. |
| China | : Not determined. |
| Japan | : Japan inventory (ENCS) : Not determined. Japan inventory (ISHL) : Not determined. |
| Malaysia | : Not determined. |
| New Zealand | : Not determined. |
| Philippines | : Not determined. |
| Republic of Korea | : Not determined. |
| Taiwan | : Not determined. |
| United States | : United States inventory (TSCA 8b) : Not determined. |

15.2 Chemical safety assessment : Complete.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

| | |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Abbreviations and acronyms | : ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number |
| Full text of abbreviated H statements | : H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. |
| Full text of classifications [CLP/GHS] | : Aquatic Acute 1, H400 ACUTE AQUATIC HAZARD - Category 1 Aquatic Chronic 1, H410 LONG-TERM AQUATIC HAZARD - Category 1 Aquatic Chronic 3, H412 LONG-TERM AQUATIC HAZARD - Category 3 Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2 STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |

Date of printing : 20/04/2021

Date of issue/ Date of revision : 20/04/2021

Date of previous issue : 26/10/2020

Version : 5

Notice to reader

This Safety Data Sheet contains information based on the state of our knowledge relating to the product concerned, at the date indicated.

Moreover the attention of the users is drawn to the possibility of risks when a product is used for uses other than those for which it is conceived.

It does not exempt in any case the user to know and apply the whole of the texts regulating its activity. It is the users sole responsibility to learn about the precautions related to the use of this product.

Annex on Safe Use Information (SUI - SUMI)

Industrial

Identification of the substance or mixture

Product definition : Mixture
Product name : SAPHIR
 solution

Health Contributing scenarios : **Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) - PROC05**
Transfer of substance or preparation (charging/discharging) from/to vessels/ large containers at dedicated facilities - PROC08b
Spraying in industrial settings and applications - PROC07
Roller application or brushing of adhesive and other coating - PROC10
Production of preparations or articles by tableting, compression, extrusion, pelletisation - PROC14
Low energy manipulation of substances bound in materials and/or articles - PROC21

Contributing scenario controlling environmental exposure for : solution

Technical conditions and measures at process level (source) to prevent release : Do not release into the environment

Contributing scenario controlling worker exposure for : Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)

Physical state : Liquid
Dust : Not applicable.
Frequency and duration of use/exposure : 8 h (full shift). 220 days/year
Ventilation control measures : Provide adequate ventilation. This can be achieved by local exhaust or general air extraction. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentrations below the occupational exposure limit values.
Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection : Wear suitable gloves tested to EN374. Nitrile gloves. Wear safety glasses with side protection in accordance with EN 166.
Respiratory protection : Respiratory protection is required for: insufficient ventilation

Contributing scenario controlling worker exposure for : Transfer of substance or preparation (charging/ discharging) from/to vessels/ large containers at dedicated facilities

Physical state : Liquid
Dust : Not applicable.
Frequency and duration of use/exposure : 8 h (full shift). 220 days/year
Ventilation control measures : Provide adequate ventilation. This can be achieved by local exhaust or general air extraction. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentrations below the occupational exposure limit values.
Conditions and measures related to personal protection, hygiene and health evaluation
Personal protection : Wear suitable gloves tested to EN374. Nitrile gloves. Wear safety glasses with side protection in accordance with EN 166.
Respiratory protection : Respiratory protection is required for: insufficient ventilation

Contributing scenario controlling worker exposure for : Spraying in industrial settings and applications

| | |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical state | : Liquid |
| Dust | : Not applicable. |
| Frequency and duration of use/exposure | : 8 h (full shift). 220 days/year |
| Ventilation control measures | : Provide adequate ventilation. This can be achieved by local exhaust or general air extraction. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentrations below the occupational exposure limit values. |

Conditions and measures related to personal protection, hygiene and health evaluation

| | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Personal protection | : Wear suitable gloves tested to EN374. Nitrile gloves. Wear safety glasses with side protection in accordance with EN 166. |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|

Contributing scenario controlling worker exposure for : Roller application or brushing of adhesive and other coating

| | |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical state | : Liquid |
| Dust | : Not applicable. |
| Frequency and duration of use/exposure | : 8 h (full shift). 220 days/year |
| Ventilation control measures | : Provide adequate ventilation. This can be achieved by local exhaust or general air extraction. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentrations below the occupational exposure limit values. |

Conditions and measures related to personal protection, hygiene and health evaluation

| | |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Personal protection | : Wear suitable gloves tested to EN374. Nitrile gloves. Wear safety glasses with side protection in accordance with EN 166. |
| Respiratory protection | : Respiratory protection is required for: insufficient ventilation |

Contributing scenario controlling worker exposure for : Production of preparations or articles by tableting, compression, extrusion, pelletisation

| | |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical state | : Liquid |
| Dust | : Not applicable. |
| Frequency and duration of use/exposure | : 8 h (full shift). 220 days/year |
| Ventilation control measures | : Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. |

Conditions and measures related to personal protection, hygiene and health evaluation

| | |
|----------------------------|-----------------------------------------|
| Personal protection | : Wear suitable gloves tested to EN374. |
|----------------------------|-----------------------------------------|

Contributing scenario controlling worker exposure for : Low energy manipulation of substances bound in materials and/or articles

| | |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical state | : Liquid |
| Dust | : Not applicable. |
| Frequency and duration of use/exposure | : 8 h (full shift). 220 days/year |
| Ventilation control measures | : Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. |

Conditions and measures related to personal protection, hygiene and health evaluation

| | |
|----------------------------|-----------------------------------------|
| Personal protection | : Wear suitable gloves tested to EN374. |
|----------------------------|-----------------------------------------|