

## IM22c

Safety Data Sheet dated July 12, 2024, version C.

In compliance with the requirement of the Regulation (EC) N°1907/2006.

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product Identifier

Trade name: **IM22c**  
Catalogue number: 2010000196  
CAS number: [3044730-57-3]  
IUPAC name: 3-butyl-1-(2,6-dimethyl-14-tetradecyloctacosan-9-yl)-1H-imidazol-3-ium chloride  
Chemical Formula:  $C_{51}H_{101}ClN_2$   
Molecular Weight: 777.83 g/mol

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

Recommended use: Laboratory chemical. Manufacture of substances.

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

**Company:**  
POLYPLUS-TRANSFECTION SA  
75, rue Marguerite Perey  
67400 ILLKIRCH  
FRANCE  
Tel: +33 (0)3 90 40 61 80  
Fax: +33 (0)3 90 40 61 81  
Email: polyplus-Support@Sartorius.com

#### 1.4. Emergency telephone number

I.N.R.S.: +33 (0)1 40 44 30 00  
On-line information database TOXBASE ([www.toxbase.org](http://www.toxbase.org))

### SECTION 2. HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008:**

Acute toxicity, Oral (Category 4), H302, H312, H332.  
Skin Irrit. (Category 2), H315  
Eye Irrit. (Category 2), H319  
Specific target organ toxicity, single exposure; Respiratory system (Category 3), H335

#### 2.2. Label elements

**Labelling according Regulation (EC) No 1272/2008 [CLP]:**

Symbols:



Warning

Hazard statements:

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.

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Precautionary statements:

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P281 Use personal protective equipment as required.
- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P330 Rinse mouth.
- P332 + P313 If skin irritation occurs: Get medical advice/ attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P362 Take off contaminated clothing and wash before reuse.

**2.3. Other hazards**

**vPvB and PBT Substances:**

No data available.

**Endocrine disrupting properties:**

No data available.

**Other Hazards:**

No other hazards.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances**

Substance	Classification
3-butyl-1-(2,6-dimethyl-14-tetradecyloctacosan-9-yl)-1H-imidazol-3-ium chloride	
CAS-No.: [3044730-57-3] EC-No.: N.A.	Acute Tox.4; Skin irrit. 2; Eye Irrit. 2 ; STOT SE 3 H302, H312, H315 H319, H332, H335

**3.2. Mixtures**

None.

**SECTION 4. FIRST AID MEASURES**

**4.1. Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous physician.

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Remove contaminated clothing and shoes. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Call a POISON CENTER or doctor/physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

N.A.

**SECTION 5. FIRE-FIGHTING MEASURES**

**5.1. Extinguishing media**

**Suitable extinguishing media:**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Hazardous decomposition products formed under fire conditions. Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, and Nitrogen oxides (NOx).

**5.3. Advice for fire-fighters**

Wear self-contained breathing apparatus for fire-fighting if necessary.  
Wear protective clothing to prevent contact with skin and eyes.

**5.4. Further information**

N.A.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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

Wear personal protection equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust. Ensuring personal safety, mark out contaminated area with signs and prevent unauthorised access. Personal involved in clean-up should wear appropriate personal protective equipment. Evacuate personnel to safe areas.

**6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4. Reference to other sections**

See also section 13.

**SECTION 7. HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.  
Recommended storage temperature:  $-20\pm 5^{\circ}\text{C}$ . Hygroscopic. Store under inert gas.

**7.3. Specific end use(s)**

None in particular.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

None.

**8.2. Exposure controls**

**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.

**Personal protective equipment**

Eye/face protection:

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection:

Complete suits protecting against chemicals. The type of body protection must be selected according to the amount and concentration of the dangerous substance at the workplace.

Respiratory protection:

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Unless otherwise indicated, tests have been carried out at 20°C and at normal atmospheric pressure (760 mm Hg - 1 atm).

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

Appearance and colour:	Form: Liquid Colour: Clear to light yellow
Odour:	N.A.
Odour threshold:	N.A.
pH:	N.A.
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	N.A.
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	N.A.
Solubility in water:	N.A.
Lipid solubility:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Particle characteristics:	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.

**9.2. Other information**

N.A.

**SECTION 10. STABILITY AND REACTIVITY**

**10.1. Reactivity**

N.A.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

None.

**10.4. Conditions to avoid**

None in particular.

**10.5. Incompatible materials**

None.

**10.6. Hazardous decomposition products**

Other decomposition product: N.A.

In the event of fire: Carbon monoxide, Carbon dioxide, Hydrogen chloride gas, and Nitrogen oxides (NOx). See section 5.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**

No data available.

**Skin corrosion/irritation**

No data available.

**Serious eye damage/eye irritation**

No data available.

**Respiratory or skin sensitisation**

No data available.

**Germ cell mutagenicity**

No data available.

**Carcinogenicity**

No data available

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**Reproductive toxicity**

No data available.

**Specific target organ toxicity - single exposure**

No data available.

**Specific target organ toxicity - repeated exposure**

No data available.

**Aspiration hazard**

No data available.

**Additional information**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

**11.2. Information on other hazards**

**11.2.1 Endocrine disrupting properties**

No data available.

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**SECTION 12. ECOLOGICAL INFORMATION**

**12.1. Toxicity**

No data available.

**12.2. Persistence and degradability**

No data available.

**12.3. Bioaccumulative potential**

No data available

**12.4. Mobility in soil**

No data available

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

vPvB Substances: None.

PBT Substances: None.

**12.6. Endocrine disrupting properties**

No data available.

**12.7. Other adverse effects**

None.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

Recover if possible. In so doing, comply with the local and national regulations currently in force.

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**SECTION 14. TRANSPORT INFORMATION**

**14.1. UN number or ID Number**

Not classified as dangerous in the meaning of transport regulations.

**14.2. UN proper shipping name**

N.A.

**14.3. Transport hazard class(es)**

N.A.

**14.4. Packing Group**

N.A.

**14.5. Environmental hazards**

Marine pollutant: No

**14.6. Special Precautions for User**

N.A.

**14.7. Maritime transport in bulk according to IMO instruments**

No.

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**SECTION 15. REGULATORY INFORMATION**

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

Where applicable, refer to the following regulatory provisions:

Directive 98/24/EC (Risks related to chemical agents at work).

Directive 2000/39/EC (Occupational exposure limit values).

Directive 2012/18/EU (Control of major-accident hazards involving dangerous substances) and subsequent amendments.

Regulation (EC) n° 648/2004 (detergents).

Directive 2010/75/EU (integrated pollution prevention and control).

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**15.2. Chemical Safety Assessment**

No.

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**SECTION 16. OTHER INFORMATION**

Full text of phrases referred to in Section 3:

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation
- H319 Causes serious eye irritation
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.

Main bibliographic sources:

- ECHA CHEM (European Chemicals Agency)
- eCHEMPORTAL (OECD Global Portal of Information on Chemical Substances)
- GESTIS International Limit Values (IFA)
- TOXNET (Hazardous Substances Data Bank)
- ESIS (European chemical Substances Information System) - European Commission/Joint Research Centre/Institute for Health and Consumer Protection
- ACToR (Aggregated Computational Toxicology Resource - EPA's database on chemical toxicity)
- CCR DATA (Ecological Categorization Results from the Canadian Domestic Substance List)

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This safety data sheet has been completely updated in compliance with Regulation (CE) 1907/2006.

This document supersedes any previous version.

N.A.: Not Available  
PBT: Persistent, Bioaccumulative and Toxic.  
vPvB: very Persistent and very Bioaccumulative.

End of the safety data sheet.