

SAFETY DATA SHEET

PHOSLITETM B631C

Section 1. Identification

 Product identifier
 : PHOSLITE™ B631C

 Chemical name
 : PHOSLITE™ B631C

 Other means of identification
 : Not applicable

Product type : solid

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

Identified uses

Formulation and (re)packing of substances and mixtures

Manufacture of plastics products

Uses advised against

Reason : The supplier has no experience or data on this use.

Supplier's details : Italmatch Chemicals Spa

via S. Tommaso 13 Spoleto (PG) Italy

06049

 $+39\ 0743\ 20191$

Monday - Friday (9.00 - 17.00)

Emergency telephone number

(with hours of operation)

For Chemical Emergency Spill, Leak, Fire, Exposure or Accident Call

CHEMTREC Day or Night:

National contact +1-800-424-9300

International Emergency Telephone number: +1-703-527-3887 (call

collect)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard

Communication Standard (29 CFR 1910.1200).

Classification of the substance or

mixture

: ACUTE TOXICITY (ORAL) - Category 4

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SKIN SENSITIZATION - Category 1

GHS label elements

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Hazard pictograms



Signal word : Danger

Hazard statements : Harmful if swallowed.

Causes serious eye damage.

May cause an allergic skin reaction.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice

is needed, have product container or label at hand.

Prevention: Wear protective gloves. Avoid breathing dust. Do not eat, drink or

smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of

the workplace.

Response : IF SWALLOWED: Call a POISON CENTER or physician if you feel

unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes.

Continue rinsing.

Storage : Not applicable.

Disposal: Dispose of contents and container in accordance with all local,

regional, national and international regulations.

Hazards not otherwise classified : Explosive in the presence of the following materials or conditions:

oxidizing materials Hazardous combustion products: HBr Phosphorus

pentoxide (Corrosive gas)

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Chemical name : PHOSLITE™ B631C **Other means of identification** : Not applicable

CAS number/other identifiers

Product code : 1001839, 1001841, 1001897, 1001898, 1001895, 1001894, 1001844,

1001896, 1001899, 1001842, 1001840, 1001843

Ingredient name	%	CAS number
Phosphinic acid, calcium salt (2:1)	60	7789-79-9
Benzene, 1,1'-(1,1,2,2-tetramethyl-1,2-ethanediyl)bis-	10	1889-67-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the

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concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the

upper and lower eyelids. Continue to rinse for at least 10 minutes. Get

medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable

for breathing. In case of inhalation of combustion or decomposition fumes: bring the exposed person to fresh air and get medical aid

immediately. Get medical attention if symptoms occur.

Skin contact: Flush contaminated skin with plenty of water. Remove contaminated

clothing and shoes. Get medical attention if symptoms occur. In case of burns, immediately cool affected skin with cold water May cause skin sensitization. In the event of any complaints or symptoms, avoid

further exposure.

Ingestion: Get medical attention immediately. Wash out mouth with water.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by

medical personnel.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : May give off gas, vapor or dust that is very irritating or corrosive to

the respiratory system.

Skin contact : May cause an allergic skin reaction.

Ingestion: Harmful if swallowed. May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

pain or irritation

watering redness

Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist

immediately if large quantities have been ingested or inhaled.

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Specific treatments No specific treatment.

Protection of first-aiders No action shall be taken involving any personal risk or without

suitable training. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

See toxicological information (section 11)

Section 5. Fire-fighting measures

Extinguishing media

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

suitable absorbent.

Unsuitable extinguishing media Do not use water jet.

Specific hazards arising from the chemical

Hazardous thermal decomposition

products

May cause fire or explosion.

Decomposition products may include the following materials:

Phosphorus pentoxide

HBr

Special protective actions for fire-

fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for

fire-fighters

Fire-fighters should wear appropriate protective equipment and selfcontained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Remark Remark

Non-flammable. Not applicable.

Section 6. Accidental release measures

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 spilled material. Put on appropriate personal protective equipment. Shut off all ignition sources. Avoid shock and friction. Use non-

sparking tools.

For emergency responders If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See

also the information in "For non-emergency personnel".

Environmental precautions Avoid dispersal of spilled material and runoff and contact with soil,

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waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Eliminate all ignition sources.

Large spill

Move containers from spill area. Eliminate all ignition sources. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Fine dust clouds may form explosive mixtures with air. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

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.

Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully

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> resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Good general ventilation should be sufficient to control worker **Appropriate engineering controls**

> exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. Use local exhaust ventilation or

handle in a ventilated enclosure.

Emissions from ventilation or work process equipment should be **Environmental exposure controls**

> checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be

necessary to reduce emissions to acceptable levels.

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the

workstation location.

Eye/face protection Wear chemical-resistant safety glasses.

Skin protection

Hand protection Chemical-resistant, impervious gloves complying with an approved

standard should be worn at all times when handling chemical products

if a risk assessment indicates this is necessary.

Body protection Wear fire/flame resistant/retardant clothing. Other skin protection

Operators should wear antistatic footwear and clothing and floors

should be of the conducting type.

Use a properly fitted, particulate filter respirator complying with an **Respiratory protection**

> approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the

selected respirator.

Section 9. Physical and chemical properties

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Appearance

Physical state : solid [SOLID WHITE POWDER]

Color : White.

Odor : Not determined.
Odor threshold : Not available.

pH : Not applicable

Melting point : Not applicable.

Boiling point : Not applicable

Flash point : Not applicable.

Fire point : Not available.
Evaporation rate : Not applicable.

Flammability (solid, gas) : Non-flammable.

Lower and upper explosive

(flammable) limits

: Lower: Not available. Upper: Not applicable.

Vapor pressure : Not applicable.

Vapor density : Not applicable.

Relative density : 440

Solubility : Not available.

Solubility in water : Not applicable.

Partition coefficient: n-

octanol/water

: Not applicable.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

Viscosity : Dynamic: Not applicable.

Kinematic: Not applicable.

Burning time : Not applicable

Section 10. Stability and reactivity

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Reactivity : No specific test data related to reactivity available for this product or

its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will

not occur.

Conditions to avoid : Avoid the creation of dust when handling and avoid all possible

sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition

products should not be produced., Products of combustion,

Phosphorus pentoxide, HBr

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	
Phosphinic acid, calcium salt (2	2:1)				
	LD50 Oral	Rat	< 2,000 mg/kg	-	
Benzene, 1,1'-(1,1,2,2-tetramethyl-1,2-ethanediyl)bis-					
	LD50 Oral	Rat	> 5,000 mg/kg	-	

Conclusion/Summary : Harmful if swallowed.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Phosphinic acid, calcium salt	Skin -	Rabbit	0 - 1	4 hrs	72 hrs
(2:1)	Erythema/Eschar 404				
	Acute Dermal				
	Irritation/Corrosion				
	Skin - Edema 404	Rabbit	0	4 hrs	72 hrs
	Acute Dermal				
	Irritation/Corrosion				
	Eyes - Redness of the	Rabbit	1.2		72 hrs
	conjunctivae 405				
	Acute Eye				
	Irritation/Corrosion				
	Eyes - Edema of the	Rabbit	0.33		72 hrs
	conjunctivae 405				
	Acute Eye				
	Irritation/Corrosion				

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Eyes - Cornea opacity	Rabbit	0	72 hrs
405 Acute Eye			
Irritation/Corrosion			
Eyes - Iris lesion 405	Rabbit	0 - 1	72 hrs
Acute Eye			
Irritation/Corrosion			

Conclusion/Summary

Skin : Conclusive but not sufficient for classification.

Eyes : Causes serious eye damage.

Respiratory : Conclusive but not sufficient for classification.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Phosphinic acid, calcium salt	Skin	Guinea pig	Not sensitizing 406 Skin
(2:1)			Sensitization
Benzene, 1,1'-(1,1,2,2-	Skin	-	Sensitizing
tetramethyl-1,2-			
ethanediyl)bis-			

Conclusion/Summary

Skin : May cause an allergic skin reaction.

Respiratory : Conclusive but not sufficient for classification.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Phosphinic acid, calcium salt	471 Bacterial Reverse	Subject: Bacteria	Negative
(2:1)	Mutation Test	Metabolic activation:	
		with and without	
		Experiment: In vitro	
	473 In vitro Mammalian	Subject: Mammalian-	Negative
	Chromosomal Aberration	Animal	
	Test	Metabolic activation:	
		with and without	
		Experiment: In vitro	
	474 Mammalian	Subject: Mouse	Negative
	Erythrocyte	Experiment: In vivo	
	Micronucleus Test		

Conclusion/Summary : Conclusive but not sufficient for classification.

Carcinogenicity

Conclusion/Summary : Conclusive but not sufficient for classification.

Reproductive toxicity

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Conclusion/Summary : Conclusive but not sufficient for classification.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Phosphinic acid, calcium salt	Negative - Oral	Rat	-	-
(2:1)	421			
	Reproduction/D			
	evelopmental			
	Toxicity			
	Screening Test			

Conclusion/Summary : Conclusive but not sufficient for classification.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of :

exposure

Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : May give off gas, vapor or dust that is very irritating or corrosive to

the respiratory system.

Skin contact : May cause an allergic skin reaction.

Ingestion: Harmful if swallowed., May cause burns 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: No specific data.Skin contact: No specific data.Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not applicable.

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Potential delayed effects : Conclusive but not sufficient for classification.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects: No known significant effects or critical hazards.

Potential chronic health effects

Conclusion/Summary : Conclusive but not sufficient for classification.

General : Once sensitized, a severe allergic reaction may occur when

subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.Teratogenicity: No known significant effects or critical hazards.Developmental effects: No known significant effects or critical hazards.Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information : Not applicable.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	
Phosphinic acid, calcium salt (2:1)				
	Acute EC50 > 100 mg/l Fresh	Daphnia magna	48 h	
	water 202 Daphnia sp. Acute			
	Immobilization Test and			
	Reproduction Test			
Benzene, 1,1'-(1,1,2,2-tetramethyl-1,2-ethanediyl)bis-				
	Acute LC50 > 1,000 mg/l Fresh	Zebra danio	96 h	
	water			

Conclusion/Summary : Not available.

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Persistence and degradability

Conclusion/Summary : Conclusive but not sufficient for classification.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Benzene, 1,1'-(1,1,2,2-tetramethyl-	> 6.5	-	high
1,2-ethanediyl)bis-			

Mobility in soil

Soil/water partition coefficient

(KOC)

Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: 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. Waste packaging should be recycled. The generation of waste should be avoided or minimized wherever possible.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	-	-	-	-	-	-
UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
Transport hazard class(es)	Not available.	Not available.	Not available.	Not available.	Not available.	Not available.
Packing group	-	-	-	-	-	-

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Environmen tal hazards	No.	No.	No.	No.	No.	No.
Additional information	-	-	-	Tunnel code:	Emergency schedules (EmS): -	-

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.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Proper shipping name : Not applicable

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) IUR: Not determined

Clean Air Act Section 112(b)

Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I

Substances

Clean Air Act Section 602 Class II

Substances

DEA List I Chemicals (Precursor

Chemicals)

DEA List II Chemicals (Essential

Chemicals)

Not listed

Not listed

Not listed

Not listed

Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Classification

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State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

Not available.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Chemical Weapons Convention List Schedule I Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule II Chemicals

None of the components are listed.

Chemical Weapons Convention List Schedule III Chemicals

None of the components are listed.

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

None of the components are listed.

Stockholm Convention on Persistent Organic Pollutants

Annex A - Elimination - Production

None of the components are listed.

Annex A - Elimination - Use

None of the components are listed.

Annex B - Restriction - Production

None of the components are listed.

Annex B - Restriction - Use

None of the components are listed.

Annex C - Unintentional - Production

None of the components are listed.

Rotterdam Convention on Prior Inform Consent (PIC)

None of the components are listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

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Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

None of the components are listed.

POPs - Annex 1 - Use

None of the components are listed.

POPs - Annex 2

None of the components are listed.

POPs - Annex 3

None of the components are listed.

Inventory list

Australia : Not determined.
Canada : Not determined.
China : Not determined.

Europe

Japan

All components are listed or exempted.

Japan inventory (ENCS): Not determined.

Japan inventory (ISHL): Not determined.

MalaysiaNot determined.New ZealandNot determined.PhilippinesNot determined.Republic of KoreaNot determined.

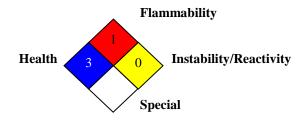
Taiwan : All components are listed or exempted.

Turkey : Not determined.

United States : All components are listed or exempted.

Section 16. Other information

National Fire Protection Association (U.S.A.)



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material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (ORAL) - Category 4	Expert judgment
SERIOUS EYE DAMAGE/ EYE IRRITATION -	Expert judgment
Category 1	
SKIN SENSITIZATION - Category 1	Expert judgment

History

Date of printing: 02/21/2014Date of issue/Date of revision: 01/14/2019Date of previous issue: 10/23/2017

Version : 2.1

Prepared by : MALATESTAR

Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of

Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine

pollution)

UN = United Nations

References : Not available.

Notice to reader

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