

SAFETY DATA SHEET

MASTERET 20450B1

Section 1. Identification

GHS product identifier : MASTERET 20450B1
Chemical name : MASTERET 20450B1
Other means of identification : Not applicable
Product type : solid

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

Uses advised against

Reason : None identified.

Supplier's details : Italmatch Chemicals Spa

via S. Tommaso 13
Spoleto (PG)
Italy
06049
+39 0743 20191
24/7

Emergency telephone number : Chemical Emergency ONLY, call CHEMTREC at +1-800-424-9300
(with hours of operation)

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.

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 : Not applicable.
Response : Not applicable.

Storage : Not applicable.
Disposal : Not applicable.
Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Chemical name : MASTERET 20450B1
Other means of identification : Not applicable

CAS number/other identifiers

Product code : 1001443, 420353, 1001451

Ingredient name	%	CAS number
Phosphorus	>= 45 - <= 50	7723-14-0
Poly[imino(1-oxo-1,6-hexanediyl)]	>= 45 - <= 50	25038-54-4

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 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. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

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Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	No specific data.
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	:	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.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (section 11)

Section 5. Fire-fighting measures
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Extinguishing media

Suitable extinguishing media	:	Use dry chemical, CO ₂ , 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	:	Products of combustion Toxic gas Corrosive gas.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon oxides (CO, CO ₂) P ₂ O ₅ HCN nitrogen oxides
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.
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.
Remark	:	Non-flammable.
Remark	:	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.
- 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, 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** : Avoid creating dusty conditions and prevent wind dispersal. Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor. Eliminate all ignition sources.
- Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. 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).
- 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 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. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Phosphine	OSHA PEL 1989 (1989-03-01) TWA 0.4 mg/m ³ , 0.3 ppm STEL 1 mg/m ³ , 1 ppm OSHA PEL (1993-06-30) TWA 0.4 mg/m ³ , 0.3 ppm NIOSH REL (1994-06-01) TWA 0.4 mg/m ³ , 0.3 ppm STEL 1 mg/m ³ , 1 ppm ACGIH TLV (1994-09-01) TWA 0.42 mg/m ³ , 0.3 ppm STEL 1.4 mg/m ³ , 1 ppm
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- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker 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.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be 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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

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	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Use local exhaust ventilation or handle in a ventilated enclosure.

Section 9. Physical and chemical properties

Appearance

Physical state	:	solid [Granular solid.]
Color	:	Dark purple-red.
Odor	:	Slight
Odor threshold	:	Not applicable.
pH	:	Not applicable.
Melting point	:	Not applicable.
Boiling point	:	Not applicable.
Flash point	:	Not applicable.
Burning time	:	> 45 seconds
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 available.
Relative density	:	0.75 - 0.85 @ 20 °C (68 °F)
Solubility	:	insoluble in water.
Partition coefficient: n-octanol/water	:	Not applicable.
Auto-ignition temperature	:	> 300 °C (> 572 °F)
Decomposition temperature	:	Not available.
Viscosity	:	Dynamic: Not applicable.

Kinematic: Not applicable.

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : Stable under recommended storage and handling conditions (see section 7).
- Possibility of hazardous reactions** : Hazardous reactions or instability may occur under certain conditions of storage or use.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not expose to temperatures exceeding 310°C.
- Incompatible materials** : Reactive or incompatible with the following materials:
oxidizing agents
strong acids
These could cause the product to polymerize exothermically.
Unintentional contact with them should be avoided.
- Hazardous decomposition products** : Hazardous decomposition products, Hazardous combustion products:, Toxic gas, Corrosive gas.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Phosphorus				
	LD50 Oral	Rat - Female	> 15,000 mg/kg 401 Acute Oral Toxicity	-
Poly[imino(1-oxo-1,6-hexanediyl)]				

Conclusion/Summary : Conclusive but not sufficient for classification.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Phosphorus	Eyes - Redness of the conjunctivae 405 Acute Eye Irritation/Corrosion	Rabbit	0	24 hrs	72 hrs

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Conclusion/Summary

Skin : Conclusive but not sufficient for classification.
Eyes : Conclusive but not sufficient for classification.
Respiratory : Conclusive but not sufficient for classification.

Sensitization**Conclusion/Summary**

Skin : Conclusive but not sufficient for classification.
Respiratory : Conclusive but not sufficient for classification.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Phosphorus	476 In vitro Mammalian Cell Gene Mutation Test	Subject: Mammalian-Animal Experiment: In vitro	Negative
	471 Bacterial Reverse Mutation Test	Subject: Bacteria Experiment: In vitro	Negative
	473 In vitro Mammalian Chromosomal Aberration Test	Subject: Mammalian-Animal Experiment: In vitro	Negative

Conclusion/Summary : Conclusive but not sufficient for classification.

Carcinogenicity

Conclusion/Summary : Conclusive but not sufficient for classification.

Classification

Product/ingredient name	OSHA	IARC	NTP
Poly[imino(1-oxo-1,6-hexanediyl)]	-	3	-

Reproductive toxicity

Conclusion/Summary : Conclusive but not sufficient for classification.

Teratogenicity

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 : No known significant effects or critical hazards.
Inhalation : Exposure to decomposition products may cause a health hazard.
Serious effects may be delayed following exposure.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
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 : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

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

Potential chronic health effects

Conclusion/Summary : Conclusive but not sufficient for classification.
General : No known significant effects or critical hazards.
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.

Section 12. Ecological information**Toxicity**

Product/ingredient name	Result	Species	Exposure
Phosphorus			
	Acute LC50 33.2 mg/l Fresh water	Zebra danio	96 h
	Acute EC50 10.5 mg/l Fresh water 201 Alga, Growth Inhibition Test	Water flea	48 h
	Acute EC50 36.7 mg/l Fresh water 201 Alga, Growth Inhibition Test	Water flea	24 h
	Chronic NOEC 5 mg/l Fresh water	Algae.	72 h
	Acute EC50 18.3 mg/l Fresh water	Algae.	72 h
	Acute EC50 > 1,000 mg/l Fresh water 209 Activated Sludge, Respiration Inhibition Test	Activated sludge	3 h
MASTERET 20450B1			
Remarks - Acute - Aquatic invertebrates.:	Conclusive but not sufficient for classification. Practically non-toxic to aquatic organisms.		

Conclusion/Summary : Conclusive but not sufficient for classification., Practically non-toxic to aquatic organisms.

Persistence and degradability

Conclusion/Summary : Not readily biodegradable.

Conclusion/Summary : Conclusive but not sufficient for classification., Practically non-toxic to aquatic organisms.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (KOC) : Not available.

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized 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. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not available.	Not available.	Not available.	Not available.	Not available.	Not available.
UN proper shipping name	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.
Additional information	-	-	-	<u>Tunnel code:</u> -	<u>Marine pollutant:</u> No.	-

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
United States inventory (TSCA 8b): All components are listed or exempted.
United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Phosphorus;

Clean Air Act Section 112(b) : Listed
Hazardous Air Pollutants (HAPs)
Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304**Composition/information on ingredients**

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients**State regulations**

Massachusetts : The following components are listed:
Phosphorus

New York : The following components are listed:
Phosphorus

New Jersey : The following components are listed:

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Phosphorus

Pennsylvania

: The following components are listed:
Phosphorus

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

Heavy metals - Annex 1

None of the components are listed.

POPs - Annex 1 - Production

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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.

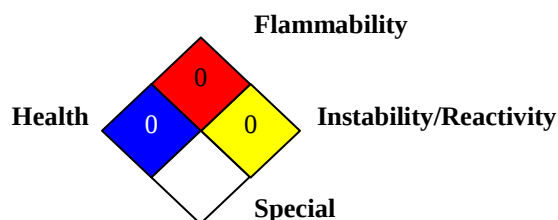
International lists

National inventory

Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Europe	:	All components are listed or exempted.
Japan	:	Not determined.
Malaysia	:	Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.

Section 16. Other information

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



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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
Not classified.	

History

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Prepared by	:	LOMAZZIE
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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