

Safety Data Sheet

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2024)

Printing date 07/23/2025

Version: 1.0

Reviewed on 07/23/2025

1: Identification

Product identifier

Product name: MetalBond

Article number: MetalBond

Application of the substance / the mixture: Industrial purposes, Restricted to professional users.

Details of the supplier of the safety data sheet

INKCUPS CORP.

310 ANDOVER ST.

DANVERS, MA 01923 - USA

978-646-8980

Information department: compliance@inkcups.com

Emergency telephone number: CHEMTREC 800-424-9300 24hr

2: Hazard(s) 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

Skin Irrit. 2; H315, Causes skin irritation.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Irrit. 2; H319, Causes serious eye irritation.

STOT SE 3; H335, May cause respiratory irritation.

Repr. 1B; H360, May damage fertility or the unborn child.

Label elements

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



Signal word Danger

Hazard statements

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

May cause respiratory irritation.

May damage fertility or the unborn child.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing mist/vapor.

Wash hands and exposed skin thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

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IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing.
 IF exposed or concerned: Get medical advice/attention.
 Immediately call a POISON CENTER/doctor.
 Get medical advice/attention if you feel unwell.
 If skin irritation or rash occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Take off contaminated clothing and wash it before reuse.
 Store in a well-ventilated place. Keep container tightly closed.
 Avoid release to the environment.
 Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional information:
 Not applicable.

3: Composition/information on ingredients

Chemical characterization: This product is a mixture.

Dangerous components:

Trade Secret	Proprietary monomer blend	80 - 95%
	Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Irrit. 2, H319; STOT SE 3, H335	
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	5 - 10%
	Skin Sens. 1B, H317; Repr. 1B, H360	
Trade Secret	Proprietary monomer	1 - 3%
	Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317; Eye Dam. 1, H318	
Trade Secret	Proprietary monomer	1 - 3%
	Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318	
818-61-1	2-hydroxyethyl acrylate	< 1%
	Acute Tox. 3, H311; Skin Corr. 1B, H314; Skin Sens. 1A, H317	

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

-

4: First-aid measures

Description of first aid measures

General information

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

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If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Not applicable.

Most important symptoms and effects, both acute and delayed

Sensitization: This product contains substances, which may trigger allergic reaction upon dermal contact.

Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

Indication of any immediate medical attention and special treatment needed

If eye irritation persists: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO₂)

Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Avoid inhalation of vapors from spilled material.

Contaminated areas may be slippery.

Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill.

Methods and material for containment and cleaning up

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.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

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Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

7: Handling and storage

Precautions for safe handling

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Keep only in original packaging.

Storage conditions

Dry, cool and well ventilated 5 - 30°C

Protect from sunlight.

Incompatible materials

Bases

Specific end use(s)

This product should only be used for applications quoted in section 1.

8: Exposure controls/personal protection

Control parameters

phosphoric acid ... %, orthophosphoric acid ... %

Short term exposure limit (STEL) (ACGIH TLV) (mg/m³): 3

Short term exposure limit (STEL) (NIOSH REL) (mg/m³): 3

Long term exposure limit (OSHA Table Z-1) (mg/m³): 1

Long term exposure limit (ACGIH TLV) (mg/m³): 1

Long term exposure limit (NIOSH REL) (mg/m³): 1

toluene

Short term exposure limit (STEL) (NIOSH REL) (ppm): 150

Long term exposure limit (ACGIH TLV) (ppm): 20

ethylbenzene

Short term exposure limit (STEL) (NIOSH REL) (ppm): 125

Long term exposure limit (OSHA Table Z-1) (mg/m³): 435

Long term exposure limit (OSHA Table Z-1) (ppm): 100

Long term exposure limit (ACGIH TLV) (ppm): 20

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

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Appropriate technical measures

The formation of vapors must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.
Apply standard precautions during use of the product.
Avoid inhalation of vapors.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Respiratory Equipment

Respiratory protection is not needed in the event of adequate ventilation.

Skin protection



Dedicated work clothing should be worn.

Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection



In the likelihood of direct or incidental exposure, use face protection.



anti-splash safety goggles

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9: Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	Transparent
Odor:	Characteristic, Acidic
Odor threshold:	Not determined.
pH-value:	Not relevant.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	> 95 °C (> 203 °F)
Flammability (solid, gaseous):	Not applicable.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not self-igniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not determined.
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not determined.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information	No further relevant information available.

10: Stability and reactivity

Reactivity

No data available.

Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

Possibility of hazardous reactions, including those associated with foreseeable emergencies

None known.

Conditions to avoid

Sunlight

Incompatible materials

Bases

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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11: Toxicological information

Information on toxicological effects

Acute toxicity:

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitization

Based on available data, the classification criteria are not met.

Skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

May damage fertility or the unborn child.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Based on available data, the classification criteria are not met.

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs.
Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Other information

toluene has been classified by IARC as a group 3 carcinogen.

ethylbenzene has been classified by IARC as a group 2B carcinogen.

12: Ecological information

Toxicity

No data available.

Persistence and degradability

Inherently biodegradable

Bioaccumulative potential

Based on available data, the classification criteria are not met.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

Other adverse effects

None known.

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13: Disposal considerations

RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)


toluene is listed with EPA Hazardous Waste Number: U220

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

14: Transport information

UN-Number	
DOT	UN3082
IMDG, IATA	UN3082
UN proper shipping name	
DOT	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IMDG	(acrylate monomer)
	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IATA	(acrylate monomer), MARINE POLLUTANT
	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
	(acrylate monomer)
Transport hazard class(es)	
DOT, IMDG, IATA	
	
Class	9 Miscellaneous dangerous substances and articles
Label	9
Packing group	
DOT, IMDG, IATA	III
Environmental hazards:	
Marine pollutant:	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
Special precautions for user	Warning: Miscellaneous dangerous substances and articles
Hazard identification number (Kemler code):	90
EMS Number:	F-A S-F
Stowage Category	A
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
IMDG	
Limited quantities (LQ)	5L
UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ACRYLATE MONOMER), 9, III

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These substances when carried in single or combination packaging's containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of DOT/IMDG/IATA provided the packaging's meet the general specifications for packaging: Part 178 (DOT) / 4.1.1.1, 4.1.1.2, 4.1.1.4 - 4.1.1.8 (IMDG) / 5.0.2.4.1, 5.0.2.6.1.1, 5.0.2.8 (IATA).

DOT / See § 172.101 Hazardous Materials Table for any information on special provisions, requirements, or warnings in connection with transport. See § 172.602, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

15: Regulatory information

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

U.S. Federal regulations

TSCA (the non-confidential portion)

Components of proprietary monomer blend are listed
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide is listed

Proprietary monomer is listed

Proprietary monomer is listed

toluene is listed

ethylbenzene is listed

Clean Air Act

toluene is regulated as a hazardous air pollutant (HAPS)

ethylbenzene is regulated as a hazardous air pollutant (HAPS)

EPCRA Section 302

None of the components are listed

EPCRA Section 304

None of the components are listed

EPCRA section 313

toluene is listed

ethylbenzene is listed

CERCLA

phosphoric acid ... %, orthophosphoric acid ... % is regulated with a Reportable Quantity (RQ) of:
5000 pounds

toluene is regulated with a Reportable Quantity (RQ) of: 1000 pounds

ethylbenzene is regulated with a Reportable Quantity (RQ) of: 1000 pounds

Hazardous chemical inventory reporting

This product is subject to Tier II reporting.

State regulations

California / Prop. 65

toluene is known to cause: Developmental Toxicity

NSRL/MADL (µg/day): 7000 (Level represents absorbed dose (rounded from 6,525 µg/day)

ethylbenzene is known to cause: Cancer NSRL/MADL (µg/day): 54 (inhalation) 41 (oral)

Massachusetts / Right To Know Act

2-hydroxyethyl acrylate is listed

phosphoric acid ... %, orthophosphoric acid ... % is listed

toluene is listed

ethylbenzene is listed

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New Jersey / Right To Know Act

2-hydroxyethyl acrylate / Substance number: 4126

2-hydroxyethyl acrylate is on the Special Health Hazard Substance List

phosphoric acid ... %, orthophosphoric acid ... % / Substance number: 1516

phosphoric acid ... %, orthophosphoric acid ... % is on the Special Health Hazard Substance List

toluene / Substance number: 1866

toluene is on the Special Health Hazard Substance List

ethylbenzene / Substance number: 0851

ethylbenzene is on the Special Health Hazard Substance List

New York / Right To Know Act

phosphoric acid ... %, orthophosphoric acid ... % is listed

phosphoric acid ... %, orthophosphoric acid ... % is regulated with a Threshold Reporting Quantity (TRQ) of: 100 pounds

toluene is listed

toluene is regulated with a Reportable Quantity (RQ) of:
1000 pounds

toluene is regulated with a Threshold Reporting Quantity (TRQ) of: 0 pounds

ethylbenzene is listed

ethylbenzene is regulated with a Reportable Quantity (RQ) of: 1000 pounds

ethylbenzene is regulated with a Threshold Reporting Quantity (TRQ) of: 0 pounds

Pennsylvania / Right To Know Act

2-hydroxyethyl acrylate is listed

phosphoric acid ... %, orthophosphoric acid ... % is listed

phosphoric acid ... %, orthophosphoric acid ... % is hazardous to the environment (E)

toluene is listed

toluene is hazardous to the environment (E)

ethylbenzene is listed

ethylbenzene is hazardous to the environment (E)

Restrictions for application

Restricted to professional users.

Demands for specific education

No specific requirements.

Additional information

Not applicable.

Chemical safety assessment

No

Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

16: Other information

Full text of H-phrases as mentioned in section 3

H290, May be corrosive to metals.

H302, Harmful if swallowed.

H311, Toxic in contact with skin.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

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H318, Causes serious eye damage.
 H319, Causes serious eye irritation.
 H335, May cause respiratory irritation.
 H360, May damage fertility or the unborn child.

The full text of identified uses as mentioned in section 1

None known.

Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists
 ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 CAS = Chemical Abstracts Service
 CERCLA = Comprehensive Environmental Response Compensation and Liability Act
 DOT = Department of Transportation
 EINECS = European Inventory of Existing Commercial chemical Substances
 EPCRA = Emergency Planning and Community Right-To-Know Act
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 HCIS = Hazardous Chemical Information System
 HNOC = Hazards Not Otherwise Classified
 IARC = International Agency for Research on Cancer
 IATA = International Air Transport Association
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 NFPA = National Fire Protection Association
 NIOSH = National Institute for Occupational Safety and Health
 OECD = Organization for Economic Co-operation and Development
 OSHA = Occupational Safety and Health Administration
 PBT = Persistent, Bioaccumulative and Toxic
 RCRA = Resource Conservation and Recovery Act
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
 RRN = REACH Registration Number
 SARA = Superfund Amendments and Reauthorization Act
 SCL = A specific concentration limit.
 STEL = Short-term exposure limits
 STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
 STOT-SE = Specific Target Organ Toxicity - Single Exposure
 TSCA = The Toxic Substances Control Act
 TWA = Time weighted average
 UN = United Nations
 UVBC = Unknown or variable composition, complex reaction products or of biological materials
 VOC = Volatile Organic Compound
 vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

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Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en