

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

1.1 Product identifier

Product name : Diamond D HIPA Monomer
Product code : 1014215, 1014216
Product description :
Product type : Liquid.
Other means of identification : Not available.

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

Not applicable.

1.3 Details of the supplier of the safety data sheet

Keystone Industries GmbH
Stockholzstr. 11
78224 Singen, Germany
+49 77 31 91 21 01

Keystone Industries
52 West King Street
Myerstown, PA 17067
USA

e-mail address of person responsible for this SDS : customerservice@keystoneind.com

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : 1-352-323-3500

Supplier

Telephone number : (+31) 412 693100

Hours of operation : Monday through Friday 8:00 am to 5:00 pm (UTC +2)
Excluding National holidays

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

Skin Sens. 1, H317

STOT SE 3, H335

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

Ingredients of unknown toxicity : 8.9 percent of the mixture consists of component(s) of unknown acute dermal toxicity
8.9 percent of the mixture consists of component(s) of unknown acute inhalation toxicity

Ingredients of unknown ecotoxicity : Contains 8.9% of components with unknown hazards to the aquatic environment

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

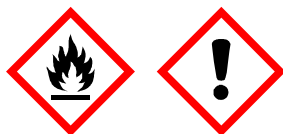
SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms

:



Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.

Precautionary statements

Prevention

: Wear protective gloves. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapor. Wash thoroughly after handling.

Response

: IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.

Storage

: Store in a well-ventilated place. Keep container tightly closed.

Disposal

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

Hazardous ingredients

: methyl methacrylate
Ethylene glycol dimethacrylate
N,N-dimethyl-p-toluidine

Supplemental label elements

: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

: Not applicable.

Tactile warning of danger

: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

: Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
methyl methacrylate	EC: 201-297-1 CAS: 80-62-6 Index: 607-035-00-6	≥90	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	-	[1] [2]
Ethylene glycol dimethacrylate	EC: 202-617-2 CAS: 97-90-5 Index: 607-114-00-5	≤10	Skin Sens. 1, H317 STOT SE 3, H335	STOT SE 3, H335: C ≥ 10%	[1]
N,N-dimethyl-p-toluidine	EC: 202-805-4 CAS: 99-97-8 Index: 612-056-00-9	≤3	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 STOT RE 2, H373 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 1.4 mg/l	[1]

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, vPvBs or Substances of equivalent concern, 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

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

SECTION 4: First aid measures

4.1 Description of 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. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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

: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

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 vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

5.3 Advice for firefighters

SECTION 5: Firefighting measures

- 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. 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized 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".

6.2 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).

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach 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 spilled 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 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling)

SECTION 7: Handling and storage

Advice on general occupational hygiene

equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

: 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 a segregated and approved area. 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. Store locked up. 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 resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
methyl methacrylate	EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : 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

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
methyl methacrylate	DNEL	Short term Dermal	1.5 mg/cm ²	General population	Local
	DNEL	Long term Dermal	1.5 mg/cm ²	General population	Local
	DNEL	Short term Dermal	1.5 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	1.5 mg/cm ²	Workers	Local
	DNEL	Long term Oral	8.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	8.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	13.67 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	74.3 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	104 mg/m ³	General population	Local
	DNEL	Short term Inhalation	208 mg/m ³	General population	Local
	DNEL	Long term Inhalation	208 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	348.4 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	416 mg/m ³	Workers	Local
	DNEL	Long term Oral	0.83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.83 mg/kg bw/day	General population	Systemic
Ethylene glycol dimethacrylate	DNEL	Long term Dermal	1.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.45 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	2.45 mg/m ³	Workers	Systemic
N,N-dimethyl-p-toluidine	DNEL	Long term Oral	0.17354167 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.29252174 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.30181159 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.69416667 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.2239254 mg/m ³	Workers	Systemic

PNECs

No PNECs 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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

SECTION 8: Exposure controls/personal protection

- 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. Contaminated work clothing should not be allowed out of the workplace. 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: chemical splash goggles.
- 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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- 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** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- 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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : 101°C (213.8°F)
- Flammability** : Not available.
- Lower and upper explosion limit** : Lower: 2%
Upper: 12.5%
- Flash point** : Closed cup: 20°C (68°F) [Tagliabue]
- Auto-ignition temperature** : 421°C (789.8°F)

SECTION 9: Physical and chemical properties

Decomposition temperature	: Not available.
pH	: Not available.
Viscosity	: Not available.
Solubility in water	: Not available.
Partition coefficient: n-octanol/ water	: Not applicable.
Vapor pressure	: 3.9 kPa (29 mm Hg)
Evaporation rate	: 1.5 (butyl acetate = 1)
Relative density	: 0.94
Vapor density	: 3.45 [Air = 1]
Explosive properties	: Not available.
Oxidizing properties	: Not available.
<u>Particle characteristics</u>	
Median particle size	: Not applicable.

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	: The product is stable.
10.3 Possibility of hazardous reactions	: Hazardous reactions or instability may occur under certain conditions of storage or use.
10.4 Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
10.5 Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
methyl methacrylate	LC50 Inhalation Vapor	Rat	78000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	7872 mg/kg	-
Ethylene glycol	LD50 Oral	Rat	3300 mg/kg	-
dimethacrylate				
N,N-dimethyl-p-toluidine	LC50 Inhalation Vapor	Rat	1400 mg/m ³	4 hours
	LD50 Oral	Rat	980 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

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SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Diamond D HIPA Monomer	9784.9	29354.8	N/A	137.0	N/A
methyl methacrylate	7872	N/A	N/A	78	N/A
Ethylene glycol dimethacrylate	3300	N/A	N/A	N/A	N/A
N,N-dimethyl-p-toluidine	100	300	N/A	1.4	N/A

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitization

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
methyl methacrylate	Category 3	-	Respiratory tract irritation
Ethylene glycol dimethacrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
N,N-dimethyl-p-toluidine	Category 2	-	-

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 : May cause respiratory irritation.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

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:
respiratory tract irritation
coughing

SECTION 11: Toxicological information

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- 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 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.

- Conclusion/Summary** : Not available.
- 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.
- Reproductive toxicity** : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
methyl methacrylate	Acute LC50 130000 µg/l Fresh water	Fish - Pimephales promelas - Adult	96 hours
N,N-dimethyl-p-toluidine	Acute LC50 46000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

- Conclusion/Summary** : Not available.

12.2 Persistence and degradability

- Conclusion/Summary** : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
methyl methacrylate	1.38	-	low
Ethylene glycol dimethacrylate	1.87	-	low
N,N-dimethyl-p-toluidine	1.729	33	low

12.4 Mobility in soil

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

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SECTION 12: Ecological information

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

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

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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1993	UN1993	UN1993	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (methyl methacrylate)	FLAMMABLE LIQUID, N.O.S. (methyl methacrylate)	FLAMMABLE LIQUID, N.O.S. (methyl methacrylate)	FLAMMABLE LIQUID, N.O.S. (methyl methacrylate)
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	II	II	II	II

Diamond D HIPA Monomer

SECTION 14: Transport information

14.5 Environmental hazards	No.	No.	No.	No.
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Additional information

ADR/RID : **Special provisions** 640 (C)
Tunnel code (D/E)

ADN : **Special provisions** 640 (C)

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 Maritime transport in bulk according to IMO instruments : Not available.

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 authorization

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

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P5c

SECTION 15: Regulatory information

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Eurasian Economic Union	: Russian Federation inventory : All components are listed or exempted.
Japan	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : 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.
Thailand	: All components are listed or exempted.
Turkey	: All components are listed or exempted.
United States	: Not determined.
Viet Nam	: All components are listed or exempted.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

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] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	On basis of test data Calculation method Calculation method Calculation method

Diamond D HIPA Monomer

SECTION 16: Other information

Full text of abbreviated H statements

H225	Highly flammable liquid and vapor.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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