

SECTION 1: IDENTIFICATION OF SUBSTANCE/COMPANY**1.1 Product identifier**

Product Name: Admiline 354 Part A
Product Code: A354
Product Type: Epoxy phenol novolac

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

Field of application: Widely employed as a chemical resistant coating, used as tank lining for crude oil and fuel. High-solid content.
Identified uses: Tank lining

1.3 Details of the publisher of the safety data sheet

Company details: PT MULTIPRO PAINT INDONESIA
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SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Product definition: Mixture, 2 components

GHS Classification

FLAMMABLE LIQUIDS – Category 2
SKIN CORROSION/IRRITATION – Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION – Category 2/2A
ASPIRATION HAZARD – Category 1
SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE – Category 3
CARCINOGENICITY – Category 2
SPECIFIC TARGET ORGAN TOXICITY SINGLE EXPOSURE – Category 1
HAZARDOUS TO AQUATIC ENVIRONMENT LONG TERM/CHRONIC – Category 3

2.2 Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements: H225 – Highly flammable liquid and vapor.



H304 - May be fatal if swallowed and enters airways.
 H315 – Causes skin irritation.
 H319 – Causes serious eye irritation.
 H335 – May cause respiratory irritation.
 H351 – Suspected of causing cancer.
 H370 – Causes damage to organs.
 H411 – Toxic to aquatic life with long lasting effects.

Chemical name on label: Bisphenol F epoxy resin.

Precautionary statements: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 – Avoid breathing dust/fumes/gas/mist/vapors/spray.

P273 – Avoid release to the environment.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P284 – In case of inadequate ventilation, wear respiratory protection.

P302+352 – IF ON SKIN: Wash with plenty of water.

P304+340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+351+338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing.

P308+313 – IF exposed: Call a POISON CENTER or doctor/physician.

P332+313 – IF skin irritation occurs: Get medical advice/attention.

P333+313 – IF skin irritation or a rash occurs: Get medical advice/attention.

P391 – Collect spillage.

P403+233 – Store in a well-ventilated place. Keep container tightly closed.

P405 – Store locked up.

P501 – Dispose of contents/container to... [... in accordance with local/regional/national/international regulation (**to be specified**)].

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product/Ingredient Name	Identifiers	%	GHS Classification
Bisphenol F epoxy resin	28064-14-4	35-50	H315-317-319
Titanium dioxide	13463-67-7	1-20	-
Black carbon	1333-86-4	0.1-6.0	H351
Microcrystalline silica	14808-60-7	1.0-2.5	H350-370
Oxitol	110-80-5	1-10	H226-360-302-312-332
Xylene	1330-20-7	5-10	H226-315-401
Methyl isobutyl ketone	108-10-1	1-10	H225-319-332-335

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Give oxygen or artificial respiration if needed. Remove to fresh air. If signs/symptoms continue, get medical attention.



- Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation persists, call a physician.
- Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If swallowed, call a poison control centre or doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed. Irritating to eyes and skin. Risk of serious damage to the lungs by aspiration. Vapors may cause drowsiness and dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substance, if available, can be found in section 11.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Extinguishing media: CO₂, dry chemical, foam, water fog.

Unusual fire and explosion hazards: Flammable liquid. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Vapors may travel to areas away from work site before igniting/flashing back to vapor source. Provide adequate ventilation. Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Electrical installations / working materials must comply with the technological safety standards. Wear shoes with conductive soles.

5.2 Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture: No information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Cool containers/tanks with water spray. Flammable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For personal protection see section 8. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Wear personal protective equipment.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).



Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Instructions for safe handling: Keep containers dry and tightly closed to avoid moisture absorption and contamination. Prepare the working solution as given on the label(s) and/or the user instructions. Do not breathe vapors or spray mist. Ensure all equipment is electrically grounded before beginning transfer operations. Do not use sparking tools. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation/personal protection.

Protection and hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Conditions to avoid: Heat, flames, and sparks.

Storage conditions: Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Product/ingredient name	Identifiers	%	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA
Bisphenol F epoxy resin	28064-14-4	35-50	N/A	N/A	N/A
Titanium dioxide	13463-67-7	1-20	10mg/m ³	N/A	10mg/m ³
Black carbon	1333-86-4	0.1-6.0	3mg/m ³	N/A	3.5mg/m ³
Microcrystalline silica	14808-60-7	1.0-2.5	0.025mg/m ³ , respirable	N/A	0.1mg/m ³
Oxitol	110-80-5	1-10	18mg/m ³ , 5ppm, skin	N/A	740mg/m ³ , 200ppm, skin
Xylene	1330-20-7	5-10	100ppm	N/A	435mg/m ³ , 100ppm
Methyl isobutyl ketone	108-10-1	1-10	20ppm	75ppm	410mg/m ³ , 100ppm

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.

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.

8.3 Individual protection measures

Hygiene: 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: 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.

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.

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to EN374.

May be used, gloves (breakthrough time) 4 - 8 hours: PVC, nitrile rubber Recommended, gloves (breakthrough time) > 8 hours: 4H, fluor rubber, Viton®, neoprene, butyl rubber.



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:	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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance/color:	Solid color liquid
Odor:	Light aromatic
Solubility in water:	Negligible
Specific gravity:	1.30-1.40
Vapor density:	Heavier than air
Evaporation rate:	Slower than ether
Flash point:	16°C

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Heat, flames, and sparks.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition will not form during normal storage. Carbon monoxide and Carbon dioxide.



SECTION 11: TOXICOLOGICAL INFORMATION
Information on toxicological effects

Irritation:	Unknown
Corrosivity:	Unknown
Sensitization:	Unknown
Repeated dose toxicity:	Unknown
Carcinogenicity:	Unknown
Mutagenicity:	Unknown
Toxicity for reproduction:	Unknown

The individual component data is tabulated below:

Product/ingredient name	Identifiers	Oral LD50	Dermal LD50	Vapor LC50
Bisphenol F epoxy resin	28064-14-4	>5000mg/kg, rat, oral	N/A	>1.7mg/l, 4hrs, rat
Titanium dioxide	13463-67-7	25000mg/m ³ , rat, oral	N/A	N/A
Black carbon	1333-86-4	8000mg/kg, rat, oral	N/A	N/A
Microcrystalline silica	14808-60-7	N/A	N/A	N/A
Oxitol	110-80-5	3000mg/kg, rat	3300mg/kg, rabbit	2000mg/l, rat
Xylene	1330-20-7	8600mg/kg, rat	4200mg/kg, body weight, rabbit	28mg/l, 4hrs, rat
Methyl isobutyl ketone	108-10-1	2080mg/kg, rat	>10ml/kg, rabbit	2000-4000ppm, 4hrs, rat

Additional information: Harmful if swallowed. Irritating to eyes and skin. Risk of serious damage to the lungs (by aspiration). Vapors may cause drowsiness and dizziness.

SECTION 12: ECOLOGICAL INFORMATION

Product/ingredient name	Identifiers	EC50 48hr	IC50 72hr	LC50 96hr
Bisphenol F epoxy resin	28064-14-4	N/A	N/A	N/A
Titanium dioxide	13463-67-7	N/A	N/A	N/A
Black carbon	1333-86-4	N/A	N/A	N/A
Microcrystalline silica	14808-60-7	N/A	N/A	N/A
Oxitol	110-80-5	N/A	N/A	N/A
Xylene	1330-20-7	N/A	N/A	N/A
Methyl isobutyl ketone	108-10-1	N/A	N/A	N/A

SECTION 13: DISPOSAL INFORMATION
13.1 Waste treatment 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. 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, do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste. Do not burn, or use a cutting torch on, the empty drum. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

Shipment name: Paint

UN number: 1263

Class: 3

Label: 


Sub-risk: -


Packing group: III


Environmental hazards: Yes, marine pollution

SECTION 15: REGULATORY INFORMATION

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Flammable: 

Harmful: 

Hazardous to aquatic environment: 

Product/ingredient name	Identifier
Methyl isobutyl ketone	108-10-1
Bisphenol F epoxy resin	28064-14-4
Black carbon	1333-86-4



SECTION 16: OTHER INFORMATION

H226:	Flammable liquid and vapor.
H302:	Harmful if swallowed.
H312:	Harmful in contact with skin.
H317:	May cause an allergic skin reaction.
H332:	Harmful if inhaled.
H336:	May cause drowsiness or dizziness.
H350:	May cause cancer.
H360:	May damage fertility or the unborn child.
H361:	Suspected of damaging fertility or the unborn child.
H373:	May cause damage to organs through prolonged or repeated exposure.
H401:	Toxic to aquatic life.

This information is provided without any warranty, representation, reference or license, with hope that the data is accurate to the best of Admiral's knowledge, and from sources trusted by Admiral, and is intended to describe this product for health, safety and environmental purposes only. Admiral assumes no legal responsibility for the use of or reliance on the same. Customers are encouraged to carry out their own tests. Before using any product, read the label.



SECTION 1: IDENTIFICATION OF SUBSTANCE/COMPANY**1.1 Product identifier**

Product Name: Admiline 354 Part B
Product Code: A354
Product Type: Curing agent for Admiline 354 Part A

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

Field of application: Widely employed as a chemical resistant coating, used as tank lining for crude oil and fuel. High-solid content.
Identified uses: Tank lining

1.3 Details of the publisher of the safety data sheet

Company details: PT MULTIPRO PAINT INDONESIA
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SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Product definition: Mixture, 2 components

GHS Classification

SKIN CORROSION/IRRITATION – Category 2
REPRODUCTIVE TOXICITY – Category 1
SKIN CORROSION/IRRITATION – Category 1
HAZARDOUS TO AQUATIC ENVIRONMENT SHORT TERM/ACUTE – Category 2
FLAMMABLE LIQUIDS – Category 2
SERIOUS EYE DAMAGE/EYE IRRITATION – Category 2/2A

2.2 Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements: H225 – Highly flammable liquid and vapor.
H314 – Causes severe skin burns and eye damage.
H315 – Causes skin irritation.

H319 – Causes serious eye irritation.
 H360 – May damage fertility or the unborn child.
 H401 – Toxic to aquatic life.

Chemical name on label: Isopropanol, Diethylenetriamine¹.

Precautionary statements: P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 – Avoid breathing dust/fumes/gas/mist/vapours/spray.

P273 – Avoid release to the environment.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P284 – In case of inadequate ventilation, wear respiratory protection.

P302+352 – IF ON SKIN: Wash with plenty of water.

P304+340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+351+338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing.

P308+313 – IF exposed: Call a POISON CENTER or doctor/physician.

P332+313 – IF skin irritation occurs: Get medical advice/attention.

P333+313 – IF skin irritation or a rash occurs: Get medical advice/attention.

P301+330+331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P391 – Collect spillage.

P403+233 – Store in a well-ventilated place. Keep container tightly closed.

P405 – Store locked up.

P501 – Dispose of contents/container to... [... in accordance with local/regional/national/international regulation (**to be specified**)].

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product/Ingredient Name	Identifiers	%	GHS Classification
Isopropanol	67-63-01	10-20	H225,319,336
Diethylenetriamine ¹	111-40-0	5-10	H302,312,314,317,330,334,335,360,402
Teta, reaction products with phenol/formaldehyde	32610-77-8	30-40	H319
Phenol	108-95-2	10-20	H341-331-311-301-373-314
Triethylenetetramine	112-24-3	5-10	H312,314,317,412
Oxitol	110-80-5	1-10	H226-360-302-312-332
Xylene	1330-20-7	5-10	H226-315-401
Methyl isobutyl ketone	108-10-1	1-10	H225,319,332,335

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Give oxygen or artificial respiration if needed. Remove to fresh air. If signs/symptoms continue, get medical attention.



- Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation persists, call a physician.
- Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If swallowed, call a poison control centre or doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed. Irritating to eyes and skin. Risk of serious damage to the lungs by aspiration. Vapors may cause drowsiness and dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substance, if available, can be found in section 11.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Extinguishing media: CO₂, dry chemical, foam, water fog.

Unusual fire and explosion hazards: Flammable liquid. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Vapors may travel to areas away from work site before igniting/flashing back to vapor source. Provide adequate ventilation. Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Electrical installations / working materials must comply with the technological safety standards. Wear shoes with conductive soles.

5.2 Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture: No information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Cool containers/tanks with water spray. Flammable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For personal protection see section 8. Ensure adequate ventilation. Evacuate personnel to safe areas. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Wear personal protective equipment.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).



Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Instructions for safe handling: Keep containers dry and tightly closed to avoid moisture absorption and contamination. Prepare the working solution as given on the label(s) and/or the user instructions. Do not breathe vapors or spray mist. Ensure all equipment is electrically grounded before beginning transfer operations. Do not use sparking tools. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation/personal protection.

Protection and hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Conditions to avoid: Heat, flames, and sparks.

Storage conditions: Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Product/ingredient name	Identifiers	%	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA
Isopropanol	67-63-01	10-20	200ppm	200ppm	980mg/m ³ , 400ppm
Diethylenetriamine ¹	111-40-0	5-10	N/A	N/A	N/A
Teta, reaction products with phenol/formaldehyde	32610-77-8	30-40	N/A	N/A	N/A
Phenol	108-95-2	10-20	317mg/kg, rat	630mg/kg, rabbit	N/A
Triethylenetetramine	112-24-3	5-10	>240 min, splash contact	N/A	N/A
Oxitol	110-80-5	1-10	18mg/m ³ , 5ppm, skin	N/A	740mg/m ³ , 200ppm, skin
Xylene	1330-20-7	5-10	100ppm	N/A	435 mg/m ³ , 100ppm
Methyl isobutyl ketone	108-10-1	1-10	20ppm	75 ppm	410mg/m ³ , 100ppm



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.

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.

8.3 Individual protection measures

Hygiene: 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: 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.

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.

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.



The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to EN374.

May be used, gloves (breakthrough time) 4 - 8 hours: PVC, nitrile rubber Recommended, gloves (breakthrough time) > 8 hours: 4H, fluor rubber, Viton®, neoprene, butyl rubber.

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: 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance/color:	Clear liquid
Odor:	Epoxy
Solubility in water:	Negligible
Specific gravity:	0.90-1.00
Vapor density:	Heavier than air
Evaporation rate:	Slower than ether
Flash point:	16°C

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid



Heat, flames, and sparks.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition will not form during normal storage. Carbon monoxide and Carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Irritation:	Unknown
Corrosivity:	Unknown
Sensitization:	Unknown
Repeated dose toxicity:	Unknown
Carcinogenicity:	Unknown
Mutagenicity:	Unknown
Toxicity for reproduction:	Unknown

The individual component data is tabulated below:

Product/ingredient name	Identifiers	Oral LD50	Dermal LD50	Vapor LC50
Isopropanol	67-63-01	5045mg/kg, rat	12870mg/kg, rabbit	73mg/l, 4hrs, rat
Diethylenetriamine ¹	111-40-0	1080mg/kg, rat	N/A	>10mg/l, 1hr, rat
Teta, reaction products with phenol/formaldehyde	32610-77-8	N/A	N/A	N/A
Phenol	108-95-2	270mg/kg, rat	630mg/kg, rabbit	N/A
Triethylenetetramine	112-24-3	N/A	N/A	N/A
Oxitol	110-80-5	3000mg/kg, rat	3300mg/kg, rabbit	2000mg/l, rat
Xylene	1330-20-7	8600mg/kg, rat	4200mg/kg, body weight, rabbit	29mg/l, 4hrs, rat
Methyl isobutyl ketone	108-10-1	2080mg/kg, rat	>10ml.kg, rabbit	2000-4000ppm, 4hrs, rat

Additional information: Harmful if swallowed. Irritating to eyes and skin. Risk of serious damage to the lungs (by aspiration). Vapors may cause drowsiness and dizziness.

SECTION 12: ECOLOGICAL INFORMATION

Product/ingredient name	Identifiers	EC50 48hr	IC50 72hr	LC50 96hr
Isopropanol	67-63-01	N/A	N/A	N/A
Diethylenetriamine ¹	111-40-0	N/A	N/A	N/A
Teta, reaction products with phenol/formaldehyde	32610-77-8	N/A	N/A	N/A
Phenol	108-95-2	N/A	N/A	125mg/l, fish
Triethylenetetramine	112-24-3	N/A	N/A	N/A
Oxitol	110-80-5	N/A	N/A	N/A



Xylene	1330-20-7	N/A	N/A	N/A
Methyl isobutyl ketone	108-10-1	N/A	N/A	N/A

SECTION 13: DISPOSAL INFORMATION

13.1 Waste treatment 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. 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, do not allow to enter drains or watercourses. Material and/or container must be disposed of as hazardous waste. Do not burn, or use a cutting torch on, the empty drum. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

Shipment name: Paint

UN number: 1263

Class: 3

Label: 

Sub-risk: -

Packing group: III

Environmental hazards: Yes, marine pollution

SECTION 15: REGULATORY INFORMATION

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Harmful:



Flammable:



Hazardous to aquatic environment:



Product/ingredient name	Identifier
Xylene	1330-20-7
DETA	111-40-0
Phenol	108-95-2

SECTION 16: OTHER INFORMATION

H226:	Flammable liquid and vapor.
H301:	Toxic if swallowed.
H302:	Harmful if swallowed.
H311:	Toxic in contact with skin.
H312:	Harmful in contact with skin.
H317:	May cause an allergic skin reaction.
H330:	Fatal if inhaled.
H331:	Toxic if inhaled.
H332:	Harmful if inhaled.
H334:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335:	May cause respiratory irritation.
H336:	May cause drowsiness or dizziness.
H341:	Suspected of causing genetic defects.
H373:	May cause damage to organs through prolonged or repeated exposure.
H402:	Harmful to aquatic life.
H412:	Harmful to aquatic life with long-lasting.

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