

Safety Data Sheet

BDC VAPOR SEAL - HARDENER

Revision date: 2017/06/07

1. Identification

Product identifier used on the label

BDC VAPOR SEAL HARDENER

Recommended use of the chemical and restriction on use:

Floor Coating

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

B.D. Classic Enterprises
P.O. 2445
Santa Fe Springs, CA 90670

562-944-6177

Emergency telephone number

CHEMTREC: 1-800-424-9300

Other means of identification

Chemical family: mixed amine
Synonyms: mixed amine

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200

Classification of the product

FLAMMABLE LIQUIDS	- Category 4
SKIN CORROSION/IRRITATION	- Category 1B
SERIOUS EYE DAMAGE/ EYE IRRITATION	- Category 1
SKIN SENSITIZATION	- Category 1
TOXIC TO REPRODUCTION	- Category 1B
AQUATIC HAZARD (ACUTE)	- Category 1
AQUATIC HAZARD (CHRONIC)	- Category 1

Label Elements

Pictogram:



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Signal Word: Danger

Hazard Statement:

- H227 Combustible liquid.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H360 May damage fertility or the unborn child.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P264 Wash skin thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Precautionary Statements (Response):

- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P363 Wash contaminated clothing before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- P391 Collect spillage.

Precautionary Statements (Storage):

- P403 + P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

Precautionary Statements (Disposal):

- P501 Dispose of contents/ container to an approved waste disposal plant.

3. Composition / Information on Ingredients

Ingredient name	%	CAS number
Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine	25 - 70	186321-96-0
Benzyl Alcohol	10 - 35	100-51-6
Isophorone diamine	5 - 15	2855-13-2
metaxylenediamine	5 - 15	1477-55-0
4,4'-isopropylidenediphenol	2 - 7	80-05-7
3-aminopropyldimethylamine	1 - 5	109-55-7
2,4,6-tris(dimethylaminomethyl)phenol	1 - 5	90-72-2

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Salicylic acid	1 - 5	69-72-7
Proprietary	< 15	Trade Secret

4. First-Aid Measures

Description of first aid measures

General advice:

Move out of dangerous area. Consult a physician. Show the safety data sheet to the doctor in attendance. Do not leave the victim unattended.

If inhaled:

If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician

If on skin:

Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

If on skin, rinse well with water.

If on clothes, remove clothes.

If in eyes:

Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

Remove contact lenses.

Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist

If swallowed:

Keep respiratory tract clear.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed:

None known

Note to physician

Treatment: Application of corticosteroid cream has been effective in treating skin irritation.

5. Fire-Fighting Measures

Suitable extinguishing media	No data is available on the product itself. Carbon dioxide (CO2)
Unsuitable extinguishing	High volume water jet

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media

No data is available on the product itself.

Specific hazards during firefighting

No data is available on the product itself.

Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products

No hazardous combustion products are known

No data is available on the product itself.

Specific extinguishing methods

: No data is available on the product itself.

Further information

: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up

Neutralise with acid. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

7. Handling and Storage

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Advice on protection against fire and explosion		Do not spray on a naked flame or any incandescent material. Keep away from open flames, hot surfaces and sources of ignition
Advice on safe handling		Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Conditions for safe storage		No smoking. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	:	Strong acids Strong bases Strong oxidizing agents

8. Exposure Controls/Personal Protection

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
metaxylenediamine	1477-55-0	C	0.1 mg/m ³	ACGIH
		C	0.1 mg/m ³	OSHA P0

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection

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Material	:	butyl-rubber
Break through time	:	> 8 h
		Solvent-resistant gloves (butyl-rubber) Nitrile rubber 10 - 480 min
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection		Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

9. Physical and Chemical Properties

Form:	liquid
Odor:	Ammoniacal
Color:	Amber, Brown
pH value:	Alkaline, 11
Melting point:	No data available
Boiling point:	> 135 °C
Flash point:	> 85 °C (DIN 51758 EN 22719 (Pensky-Martens Closed Cup)
Flammability:	Not flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	Not applicable
Autoignition:	No data available
Vapor pressure:	Not available
Density:	1.03 g/cm ³ at 68 °F (20 °C)
Viscosity, Dynamic	500-1400 CPS
Solubility in Water	Partially soluble
Evaporation rate:	< Ether

10. Stability and Reactivity

Chemical Stability:
Stable under normal conditions.

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.

Materials to avoid:

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Reactive or incompatible with oxidizing materials.

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

Possibility of hazardous Reactions/Reactivity:
No data available.

11. Toxicological information

Information on likely routes of exposure	No data is available on the product itself.
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Acute toxicity

Acute oral toxicity - Product	Acute toxicity estimate : 2,498 mg/kg Method: Calculation method
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Acute inhalation toxicity - Product	Acute toxicity estimate: 19.14 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
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Acute dermal toxicity - Product	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
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Acute toxicity (other routes of administration)	No data available
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Skin corrosion/irritation

Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

Components:

metaxylenediamine:

Assessment:	Harmful if swallowed or if inhaled, May be harmful in contact with skin., Causes severe skin burns and eye damage. May cause an allergic skin reaction.
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Germ cell mutagenicity

Components:

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine:

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Genotoxicity in vitro	:	Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative
metaxylenediamine: Genotoxicity in vitro	:	Test Type: Ames test Species: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes Test Type: Chromosome aberration test in vitro Species: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative GLP: yes Test Type: In vitro mammalian cell gene mutation test Species: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative GLP: yes
4,4'-isopropylidenediphenol: Genotoxicity in vitro	:	Metabolic activation: with and without metabolic activation Result: negative
3-aminopropylidimethylamine: Genotoxicity in vitro	:	Concentration: 0 - 300 µg/L Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: Ames test Concentration: 0 - 10000 µg/plate Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative

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Concentration: 0 - 715.4 µg/L
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

2,4,6-tris(dimethylaminomethyl)phenol:

Genotoxicity in vitro : Concentration: 5000 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Concentration: 2500 ug/plate
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Components:

benzyl alcohol:

Genotoxicity in vivo : Application Route: Intraperitoneal injection
Dose: 200 mg/kg
Method: OECD Test Guideline 474
Result: negative

metaxylenediamine:

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Cell type: Bone marrow
Application Route: Oral
Exposure time: single dose
Dose: 750 mg/kg body weight
Method: OECD Test Guideline 474
Result: negative
GLP: yes

4,4'-isopropylidenediphenol:

Genotoxicity in vivo : Method: OECD Test Guideline 474
Result: negative

3-aminopropyl dimethylamine:

Genotoxicity in vivo : Application Route: Intraperitoneal injection
Dose: 0 - 100 mg/kg
Method: OECD Test Guideline 474
Result: negative

Components:

metaxylenediamine:

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Germ cell mutagenicity-
Assessment

Tests on bacterial or mammalian cell cultures did not show mutagenic effects., Animal testing did not show any mutagenic effects.

3-aminopropyldimethylamine:
Germ cell mutagenicity-
Assessment

Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Germ cell mutagenicity-
Assessment

No data available

Carcinogenicity

Components:

benzyl alcohol:

Species: Rat, (male and female) Application Route: Oral Exposure time: 103 weeks Dose: 400 mg/kg
Frequency of Treatment: 5 daily Method: OECD Test Guideline 453 Result: negative

4,4'-isopropylidenediphenol: Species: Rat, (male and female) Application Route: Oral Exposure time: 103 weeks
Frequency of Treatment: 7 daily Result: negative

3-aminopropyldimethylamine:

Species: Rat, (male and female)
Application Route: Oral Exposure time: 54 weeks
Dose: 20, 100 and 350 mg/kg body weight
Frequency of Treatment: Every second week
NOAEL: 159 mg/kg bw/day

Species: Mouse, (male) Application Route: Dermal
Exposure time: Complete life span
Dose: 25µl of 1% aqueous solution
Frequency of Treatment: 3x/wk
NOAEL: 8 mg/kg bw/day

salicylic acid:

Species: Rat, (male and female)
Application Route: Oral
Exposure time: 24 month(s) Dose: 500 mg/kg
Frequency of Treatment: 7 daily Result: negative

Components:

3-aminopropyldimethylamine:

Carcinogenicity -
Assessment
IARC

: Not classifiable as a human carcinogen.

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed

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human carcinogen by IARC.

OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Components:

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Method: OECD Test Guideline 422

Metaxylenediamine:

Species: Rat, male and female Application Route: Oral

Dose: 0, 50, 150 and 450 mg/kg

General Toxicity - Parent: No-observed-effect level: 50 - 150 mg/kg body weight

General Toxicity F1: No-observed-effect level: 450 mg/kg body weight

Method: OECD Test Guideline 421

Result: No effects on fertility and early embryonic development were detected.

GLP: yes

4,4'-isopropylidenediphenol:

Species: Rat, male and female Application Route: Oral

Method: OECD Test Guideline 416

Result: Embryotoxic effects and adverse effects on the offspring were detected.

3-aminopropyldimethylamine:

Test Type: Reproduction / Developmental Toxicity Screening Test

Species: Rat, male and female Application Route: Oral

Dose: 0, 10, 50, 200 milligram per kilogram

General Toxicity - Parent: No observed adverse effect level: 200 mg/kg body weight

General Toxicity F1: No observed adverse effect level: 200 mg/kg body weight

Method: OECD Test Guideline 421

2,4,6-tris(dimethylaminomethyl)phenol:

Species: Rat, male and female Application Route: Oral

Method: OECD Test Guideline 422

Remarks: No significant adverse effects were reported

salicylic acid:

Species: Rat, male and female Application Route: Oral

Method: OECD Test Guideline 416

Species: Mouse Application Route: Oral

Method: OECD Test Guideline 416

Components:

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benzyl alcohol:

Effects on foetal development : Species: Mouse, female Application Route: Oral
General Toxicity Maternal: Lowest observed adverse effect level: 550 mg/kg body weight
Result: No teratogenic effects

isophorone diamine:

Species: Rat, female Application Route: Oral
General Toxicity Maternal: No-observed-effect level: 50 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects

4,4'-isopropylidenediphenol:

Species: Rat, female Application Route: Oral
General Toxicity Maternal: No observed adverse effect level: < 160 mg/kg body weight
Method: OECD Test Guideline 416 Result: No teratogenic effects

3-aminopropyl dimethylamine:

Species: Rat, male and female Application Route: Oral
General Toxicity Maternal: No observed adverse effect level: 200 mg/kg body weight
Method: OECD Test Guideline 421
Result: No effects on fertility and early embryonic development were detected.

salicylic acid:

Species: Rabbit, female
Application Route: Oral
General Toxicity Maternal: No observed adverse effect level: 125 mg/kg body weight
Method: OECD Test Guideline 414 Result: No teratogenic effects

Components:

metaxylendiamine:

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

4,4'-isopropylidenediphenol:

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

3-aminopropyl dimethylamine:

Reproductive toxicity - Assessment : No toxicity to reproduction
Did not show teratogenic effects in animal experiments.

salicylic acid:

Reproductive toxicity - Assessment : Clear evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments

STOT - single exposure

Components:

4,4'-isopropylidenediphenol:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

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3-aminopropyldimethylamine: Target Organs: Lungs
Assessment: May cause respiratory irritation.

STOT - repeated exposure

Components:

3-aminopropyldimethylamine:

Exposure routes: Ingestion, Skin contact, inhalation (vapour)

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine:

Species: Rat, male and female NOAEL: 1000 mg/kg/d Application Route: Ingestion Number of exposures: 7 d Method: Subacute toxicity

benzyl alcohol:

Species: Rat, male and female

: 400 mg/kg, 1072 mg/m³ Application Route: Ingestion Test atmosphere: dust/mist Exposure time: 4 Weeks

Number of exposures: 6 h

Method: OECD Test Guideline 412

isophorone diamine:

Species: Rat, male and female

: 60 mg/kg, 200 mg/m³ Application Route: Ingestion Test atmosphere: dust/mist Exposure time: 216 h

Number of exposures: 6 h Method: Subchronic toxicity

metaxylenediamine:

Species: Rat, male and female

NOEL: 150 mg/kg

Application Route: oral (gavage)

Exposure time: 672 h

Number of exposures: 7 d

Dose: 0, 10, 40, 150 and 600

mg/kg/d Method: OECD Test

Guideline 407 GLP: yes

Species: Rat, male and female

: 0.6 mg/m³

Application Route: Inhalation

Exposure time: 13 weeks

Number of exposures: 6 hours per day, 5 days per week Dose: 0, 0.64, 5.1, 31 mg/m³

Method: OECD Test Guideline 413 GLP: yes

Target Organs: Lungs

4,4'-isopropylidenediphenol:

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Species: Dog, male and female
: 75 mg/kg, 10 mg/m³
Application Route: Ingestion
Test atmosphere: dust/mist
Exposure time: 2,160 h
Number of exposures: 7 d
Method: Subchronic toxicity
Species: Rat, male and female
LOAEL: 600 mg/kg
Application Route: Ingestion
Exposure time: 672 h
Number of exposures: 7 d
Method: Subchronic toxicity

3-aminopropyldimethylamine:

Species: Rat, male and female NOAEL: 50 mg/kg
LOAEL: 250 mg/kg Application Route: Ingestion Exposure time: 28 d
Number of exposures: 7 days/week Dose: 0, 10, 50 and 250mg/kg bw/day Method: OECD Test Guideline 407

Species: Rat, male and female NOAEL: 144 mg/m³
NOAEL: 48 mg/kg
LOAEL: 107 mg/kg
Application Route: inhalation (vapour) Exposure time: 6 Weeks
Number of exposures: 7h/day, 5 days/week Method: Subacute toxicity
Target Organs: Respiratory system, Lungs, digestive system, Liver, Kidney

2,4,6-tris(dimethylaminomethyl)phenol:

Species: Rat, male and female
NOEL: 15 mg/kg Application Route: Ingestion
Exposure time: 1,032 h Number of exposures: 7 d
Method: Subacute toxicity

salicylic acid:

Species: Dog, male and female
: 700 mg/m³
Application Route: Ingestion Test atmosphere: vapour
Exposure time: 4 Weeks Number of exposures: 6 d
Method: OECD Test Guideline 412
Species: Rat, male and female
LOAEL: 250 mg/kg
Application Route: Ingestion
Exposure time: 2 yr
Number of exposures: 7 d
Method: Chronic toxicity

Components:

metaxylenediamine:

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Repeated dose toxicity
- Assessment

Harmful if swallowed or if inhaled, May be harmful in contact with skin., Causes severe skin burns and eye damage.
No adverse effect has been observed in chronic toxicity tests.

Aspiration toxicity

No data available

Experience with human exposure

General Information: No data available

Inhalation: No data available

Skin contact: No data available

Eye contact: No data available

Ingestion: No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information Product:

Remarks: No data available.

12. Ecological Information

Ecotoxicity

Components:

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.806 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 203

benzyl alcohol:

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- Toxicity to fish : LC50: 460 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: Fresh water
Method: OPPTS 850.1075
- isophorone diamine:
Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 110 mg/l
Exposure time: 96 h
Test Type: semi-static test
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.1.
- metaxylenediamine:
Toxicity to fish : LC50 (Oryzias latipes (Orange-red killifish)): 87.6 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
GLP: yes
- 4,4'-isopropylidenediphenol:
Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 7.5 mg/l
Exposure time: 96 h
- 2,4,6-tris(dimethylaminomethyl)phenol:
Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 175 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: Fresh water
- salicylic acid:
Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1,370 mg/l
Exposure time: 96 h
Test Type: flow-through test
Test substance: Fresh water
Method: OECD Test Guideline 203

Components:

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine:

- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.705 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

- benzyl alcohol:
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 230 mg/l
Exposure time: 48 h
Test substance: Fresh water
Method: OECD Test Guideline 202

isophorone diamine:

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Toxicity to daphnia and other aquatic invertebrates : EC50: 23 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

metaxylenediamine:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 15.2 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

4,4'-isopropylidenediphenol:

Toxicity to daphnia and other aquatic invertebrates : EC50: 3.9 - 10.2 mg/l
Exposure time: 48 h

(Ceriodaphnia dubia (Water flea)):

3-aminopropyl dimethylamine:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 59.5 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.2.

2,4,6-tris(dimethylaminomethyl)phenol:

Toxicity to daphnia and other aquatic invertebrates : LC50: 718 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: Marine water

salicylic acid:

Toxicity to daphnia and other aquatic invertebrates : EC50: 870 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

Components:

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine:

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 0.186 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water Method: OECD Test Guideline 201

benzyl alcohol:

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- Toxicity to algae : EgC50 (*Selenastrum capricornutum* (green algae)): 770 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201
- isophorone diamine:
Toxicity to algae : EC50: 37 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.3.
- metaxylenediamine:
Toxicity to algae : ErC50 (*Selenastrum capricornutum* (green algae)): 32.1 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes
- 4,4'-isopropylidenediphenol:
Toxicity to algae : EC50 (*Selenastrum capricornutum* (green algae)): 2.5 - 3.1 mg/l
Exposure time: 96 h
- 3-aminopropyl dimethylamine:
Toxicity to algae : ErC50 (*Pseudokirchneriella subcapitata* (green algae)): 34 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201
- EC10 (*Pseudokirchneriella subcapitata* (green algae)): 26 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water Method:
OECD Test Guideline 201
- NOEC (*Pseudokirchneriella subcapitata* (algae)): 19.53 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water Method:
OECD Test Guideline 201
- 2,4,6-tris(dimethylaminomethyl)phenol:
Toxicity to algae : ErC50 (*Desmodesmus subspicatus* (*Scenedesmus subspicatus*)): 84 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water Method:
OECD Test Guideline 201

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NOEC (Desmodesmus subspicatus (Scenedesmus subspicatus)): 6.25 mg/l
Exposure time: 72 h Test
Type: static test
Test substance: Fresh water Method:
OECD Test Guideline 201

salicylic acid:
Toxicity to algae : EC50: > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : No data available

Components:

4,4'-isopropylidenediphenol:
Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): 0.016 mg/l
Exposure time: 444 d
Test Type: flow-through test
Test substance: Fresh water
Method: Fish Life Cycle Toxicity
Remarks: Toxic to aquatic organisms.

Components:

benzyl alcohol:
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 51 mg/l
Exposure time: 21 d
Test Type: semi-static test
Test substance: Fresh water
Method: OECD Test Guideline 211

metaxylenediamine:
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 4.7 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 211
GLP: yes

salicylic acid:
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 202

M-Factor (Chronic aquatic toxicity) : No data available

Components:

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine:

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Toxicity to bacteria	: EC50 (activated sludge): 157.6 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
isophorone diamine: Toxicity to bacteria	: EC10: 1,120 mg/l Exposure time: 18 h Method: Measured
	: (Pseudomonas putida): 1,120 mg/l Exposure time: 18 h Test Type: static test Test substance: Fresh water
metaxylenediamine: Toxicity to bacteria	: EC50 (activated sludge): > 1,000 mg/l Exposure time: 0.5 h Test Type: static test Method: OECD Test Guideline 209 GLP: yes
salicylic acid: Toxicity to bacteria	: EC50 (Pseudomonas putida): 380 mg/l Exposure time: 16 h Test Type: static test Test substance: Fresh water Method: Cell multiplication inhibition test
Toxicity to soil dwelling organisms	: No data available

Components:

salicylic acid:
Plant toxicity : NOEC: Exposure time: 120 h
Remarks: see user defined free text

Sediment toxicity : No data available

Toxicity to terrestrial organisms : No data available

Ecotoxicology Assessment
Acute aquatic toxicity : No data available

Components:

4,4'-isopropylidenediphenol:
Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

2,4,6-tris(dimethylaminomethyl)phenol:
Chronic aquatic toxicity : This product has no known ecotoxicological effects.

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Toxicity Data on Soil : No data available

Other organisms relevant to the environment : No data available

Further information: No data available

Persistence and degradability

Components:

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine:

Biodegradability : Concentration: 22
Result: Not readily biodegradable.
Biodegradation: 9 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

benzyl alcohol:
Biodegradability

: Inoculum: Sewage (STP effluent)
Concentration: 20 mg/l
Result: Readily biodegradable
Biodegradation: 95 - 97 %
Exposure time: 21 d
Method: OECD Test Guideline 301A

isophorone diamine:
Biodegradability

: Inoculum: activated sludge
Concentration: 6.9 mg/l
Result: Not readily biodegradable.
Biodegradation: 8 %
Exposure time: 28 d
Method: Directive 67/548/EEC Annex V, C.4.A.

metaxylenediamine:
Biodegradability

: Inoculum: activated sludge
Concentration: 14.2 mg/l
Result: Not readily biodegradable.
Biodegradation: 49 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

4,4'-isopropylidenediphenol:
Biodegradability

: Result: Not readily biodegradable.
Biodegradation: 1 - 2 %
Exposure time: 28 d

3-aminopropyl dimethylamine:

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Biodegradability : Inoculum: activated sludge
Result: Readily biodegradable
Biodegradation: 65 %
Exposure time: 20 d
Method: OECD Test Guideline 301D

2,4,6-tris(dimethylaminomethyl)phenol:

Biodegradability : Inoculum: activated sludge
Concentration: 2 mg/l
Result: Not readily biodegradable.

Biodegradation: 4 % Exposure
time: 28 d
Method: OECD Test Guideline 301D

salicylic acid:
Biodegradability

: Inoculum: Mixture
Result: Readily biodegradable
Biodegradation: 88.1 %
Exposure time: 14 d
Method: OECD Test Guideline 301C

Components:

salicylic acid:
Biochemical Oxygen Demand (BOD) : 950 mgO₂/g
Method: Directive 67/548/EEC, Annex V, C.5

Components:

salicylic acid:
Chemical Oxygen Demand (COD) : 1580 mgO₂/g
BOD/COD : No data available

ThOD : No data available

BOD/ThOD : No data available

Dissolved organic carbon (DOC) : No data available

Physico-chemical removability : No data available

Stability in water : No data available

Components:

3-aminopropyldimethylamine:
Photodegradation : Test Type: Air
Degradation (direct photolysis): 50 %
Method: Calculation method

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Impact on Sewage Treatment : No data available

Bioaccumulative potential

Components:

benzyl alcohol: metaxylenediamine:

Bioaccumulation : Bioconcentration factor (BCF): 1

3-aminopropyldimethylamine:

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF):
3.16

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): < 0.3
Remarks: Does not bioaccumulate.

Components:

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine:

Partition coefficient: n-
octanol/water : log Pow: 3.38 (25 °C)
pH: 10.4
Method: OECD Test Guideline
117

benzyl alcohol:

Partition coefficient: n-
octanol/water : log Pow: 1.1 (20
°C)

isophorone diamine:

Partition coefficient: n-
octanol/water : log Pow: 0.99 (23 °C)
pH: 6.34
Method: OECD Test Guideline
107

metaxylenediamine:

Partition coefficient: n-
octanol/water : log Pow: 0.18 (25 °C)
pH: 10.3 - 10.4
Method: OECD Test Guideline
107 GLP: yes

3-aminopropyldimethylamine:

Partition coefficient: n-
octanol/water : log Pow: -0.352 (25 °C)

2,4,6-tris(dimethylaminomethyl)phenol:

Partition coefficient: n-
octanol/water : log Pow: 0.219 (21.5 °C)
Method: OPPTS 830.7550

salicylic acid:

Partition coefficient: n-
octanol/water : log Pow: 2.25 (25 °C)
Method: OECD Test Guideline 117

Mobility in soil

Mobility : No data
available

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Components:

benzyl alcohol:

Distribution among environmental compartments : Koc: 5 - 15

isophorone diamine:

Distribution among environmental compartments : Koc: 928

3-aminopropylidimethylamine:

Distribution among environmental compartments Koc: 29, log Koc: 1.46
Method: estimated

Koc: 4.409, log Koc: 0.644

salicylic acid:

Distribution among environmental compartments Koc: 35 Method: OECD Test Guideline 121

Stability in soil No data available

Other adverse effects

Environmental fate and pathways No data available

Results of PBT and vPvB assessment No data available

Endocrine disrupting potential : No data available

Adsorbed organic bound halogens (AOX) No data available

Hazardous to the ozone layer

Ozone-Depletion Potential Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information - Product : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

Global warming potential (GWP) No data available

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13. Disposal Considerations

Dispose of in a licensed facility. Do not discharge into waterways or sewer systems without proper authorization. Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Hazard class: 8
Packing group: II
ID number: UN 2735
Hazard label: 8
Proper shipping name: Amines, liquid, corrosive, n.o.s. (Isophorone diamine, M-xylylene diamine)
Marine Pollutant: YES (Polyamindoamine adduct, 4,4'-isopropylidenediphenol)

Sea transport

IMDG

Hazard class: 8
Packing group: II
ID number: UN 2735
Hazard label: 8
Proper shipping name: Amines, liquid, corrosive, n.o.s. (Isophorone diamine, M-xylylene diamine)
Marine Pollutant: YES (Polyamindoamine adduct, 4,4'-isopropylidenediphenol)

Air transport

IATA/ICAO

Hazard class: 8
Packing group: II
ID number: UN 2735
Hazard label: 8
Proper shipping name: Amines, liquid, corrosive, n.o.s. (Isophorone diamine, M-xylylene diamine)
Marine pollutant: YES

15. Regulatory Information

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	culated product RQ (lbs)
toluene	108-88-3	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 313: The following components are subject to reporting levels established by SARA Title III, Section 313:
4,4'-isopropylidenediphenol 80-05-7 6 %

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This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

Pennsylvania Right To Know

Fatty acids, tall-oil, reaction products with bisphenol A, epichlorohydrin, glycidyl tolyl ether and triethylenetetramine	186321-96-0	30 - 50 %
benzyl alcohol	100-51-6	20 - 30 %
isophorone diamine	2855-13-2	5 - 10 %
metaxylenediamine	1477-55-0	5 - 10 %
4,4'-isopropylidenediphenol	80-05-7	5 - 10 %

California Prop. 65 WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

4,4'-isopropylidenediphenol	80-05-7
toluene	108-88-3

The components of this product are reported in the following inventories:

CH INV	:	The formulation contains substances listed on the Swiss Inventory, On the inventory, or in compliance with the inventory
TSCA	:	On the inventory, or in compliance with the inventory
DSL	:	This product contains one or several components listed in the Canadian NDSL.
AICS	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
ENCS	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals
No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
No substances are subject to TSCA 12(b) export notification requirements.

16. Other Information

HMIS Rating

Health	:	3*
Flammability	:	2
Physical hazard	:	0

* = Chronic

SDS Prepared by:

B.D. Classic Enterprises

The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication as part of B. D. Classic Enterprises, Inc. Product Safety Program.

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It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information obtained herein. Data sheets are available for all B. D. Classic products. You are urged to obtain data sheets for all B. D. Classic products you buy, process, use or distribute and you are encouraged and requested to advise those who may come in contact with such products of the information contained therein.

To determine applicability or effects of any law or regulation with respect to the product, user should consult his legal advisor or the appropriate government agency. B. D. Classic does not undertake to furnish advice on such matters.