

AMINE C6

Version	Revision Date:	SDS Number:	Date of last issue:
3.0	03/07/2022	400001001124	03/04/2021
			Date of first issue: 03/21/2016

Print Date 04/25/2023

SECTION 1. IDENTIFICATION

Product name : AMINE C6

Manufacturer or supplier's details

Company name of supplier : Huntsman International LLC
Address : P.O. Box 4980
The Woodlands,
TX 77387
United States of America (USA)
Telephone : TechInfo: (281) 719-7780

E-mail address of person responsible for the SDS : Global_Product_EHS_HPP@huntsman.com

Emergency telephone number : Chemtrec: (800) 424-9300 or (703) 527-3887

Recommended use of the chemical and restrictions on useRecommended use : Intermediate
Processing aid**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Serious eye damage : Category 1

Short-term (acute) aquatic hazard : Category 3

Chronic aquatic toxicity : Category 3

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.Precautionary statements : **Prevention:**
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

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and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Storage:

Not available

Disposal:

P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues	68909-77-3	90 - 100

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

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.
Get medical attention if symptoms occur.
- If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.
- In case of skin contact : Wash with water and soap as a precaution.
- In case of eye contact : 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.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

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Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed : None known.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing. If potential for exposure exists refer to Section 8 for specific personal protective equipment. No action shall be taken involving any personal risk or without suitable training.

Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : Exercise caution when using a high volume water jet as it may scatter and spread fire

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

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.

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Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep in properly labelled containers.

Materials to avoid : Do not store near acids.

Further information on storage stability : Stable under normal conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection
Directive : Use gloves approved to relevant standards e.g. EN 16523 (Europe), EN 374 (Europe), F739 (US).

Material : Nitrile coated
Break through time : > 480 min

Glove thickness : 1.1 mm

Material : PVC coated
Break through time : > 480 min

Glove thickness : 1.63 mm

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Material	: Nitrile rubber
Break through time	: > 480 min
Glove thickness	: 0.4 mm
Remarks	: 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. 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: dark brown
Odour	: ammoniacal
Odour Threshold	: No data is available on the product itself.
pH	: 12
Freezing point	: < -4 °F / < -20 °C Method: Melting / Freezing Temperature
Boiling point	: 433 - 721 °F / 223 - 383 °C (1,010.4 hPa) Method: Boiling Temperature
Flash point	: 315 °F / 157 °C Method: Flash-Point, closed cup
Evaporation rate	: No data is available on the product itself.
Flammability (solid, gas)	: No data is available on the product itself.
Flammability (liquids)	: No data is available on the product itself.

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Upper explosion limit / Upper flammability limit	: No data is available on the product itself.
Lower explosion limit / Lower flammability limit	: No data is available on the product itself.
Vapour pressure	: 0.0055 hPa (77 °F / 25 °C) Method: Vapour Pressure
Relative vapour density	: 1
Relative density	: 1.09 (67.1 - 68.9 °F / 19.5 - 20.5 °C) Method: Relative Density
Density	: No data is available on the product itself.
Solubility(ies) Water solubility	: 100 g/l (67.1 - 68.9 °F / 19.5 - 20.5 °C) Method: Water solubility
Solubility in other solvents	: No data is available on the product itself.
Partition coefficient: n-octanol/water	: log Pow: 0.565 (68 °F / 20 °C) pH: 12 Method: Partition coefficient GLP: yes
Auto-ignition temperature	: 536 °F / 280 °C Method: Auto-Ignition Temperature (Liquids and Gases)
Decomposition temperature	: No data is available on the product itself.
Self-Accelerating decomposition temperature (SADT)	: No data is available on the product itself.
Viscosity Viscosity, kinematic	: 121.398 mm ² /s (68 °F / 20 °C) Method: OECD Test Guideline 114 36.458 mm ² /s (104 °F / 40 °C) Method: OECD Test Guideline 114
Explosive properties	: No data is available on the product itself.
Oxidizing properties	: None. Method: Directive 67/548/EEC, Annex V, A.21
Surface tension	: 66.8 mN/m, 1,040 mg/l, 70.2 °F / 21.2 °C, Regulation (EC) No. 440/2008, Annex, A.5
Molecular weight	: 185 g/mol
Particle size	: No data is available on the product itself.

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SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No hazards to be specially mentioned.
Conditions to avoid	:	None known.
Incompatible materials	:	Nitric acid Strong acids
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Acute oral toxicity	:	LD50 (Rat, male and female): 5,000 mg/kg Method: OECD Test Guideline 420
Acute dermal toxicity	:	LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402

Skin corrosion/irritation**Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Species	:	Rabbit
Assessment	:	No skin irritation
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Serious eye damage/eye irritation**Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Assessment	:	Risk of serious damage to eyes.
Method	:	OPPTS 870.2400

Respiratory or skin sensitisation**Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Exposure routes	:	Skin
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Species	:	Guinea pig
Assessment	:	Did not cause sensitisation on laboratory animals.
Method	:	OECD Test Guideline 406
Result	:	Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity**Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Genotoxicity in vitro	:	Test Type: reverse mutation assay Test system: Salmonella tryphimurium and E. coli Concentration: 0 - 5000 ug/plate Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
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	:	Test Type: gene mutation test Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative
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Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse (male and female) Cell type: Somatic Application Route: Oral Dose: 500/1000/2000 mg/kg Method: OECD Test Guideline 474 Result: negative
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Carcinogenicity

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
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OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
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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.
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Reproductive toxicity**Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Effects on fertility	:	Test Type: Reproduction / Developmental Toxicity Screening Test Species: Rat, male and female Application Route: Oral Dose: 0 and 1000 milligram per kilogram General Toxicity - Parent: NOAEL: 1,000 mg/kg body weight General Toxicity F1: NOAEL: 1,000 mg/kg body weight Method: OECD Test Guideline 421
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	:	Species: Rat, male and female
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Application Route: Oral
Dose: 0/150/450/1000 mg/kg bw/d
General Toxicity - Parent: NOAEL: 1,000 mg/kg body weight
General Toxicity F1: NOAEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 443

Effects on foetal development : Test Type: Pre-natal
Species: Rabbit, male and female
Application Route: Oral
Dose: 0/125/250/500 milligram per kilogram
Duration of Single Treatment: 23 d
General Toxicity Maternal: NOEL: 250 mg/kg body weight
Developmental Toxicity: NOEL: 250 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Repeated dose toxicity**Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Species : Rat, male and female
NOAEL : 1000 mg/kg
Application Route : oral (gavage)
Exposure time : 28 d
Number of exposures : daily
Dose : 100/500/1000 mg/kg bw/day
Method : OECD Test Guideline 407

Species : Rat, male and female
NOAEL : >= 1000 mg/kg
Application Route : oral (gavage)
Exposure time : 90 d
Number of exposures : daily
Dose : 0/10/100/1000 mg/kg bw/day
Method : OECD Test Guideline 408

Aspiration toxicity

No data available

Experience with human exposure

No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

No data available

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 45 mg/l
End point: mortality
Exposure time: 96 h
Test Type: semi-static test
Test substance: Fresh water
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 45 mg/l
Exposure time: 72 h
Test substance: Fresh water
Method: OECD Test Guideline 201

NOECr (Pseudokirchneriella subcapitata (green algae)): 3.2 mg/l
Exposure time: 72 h
Test substance: Fresh water
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l
Exposure time: 3 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 209

NOEC (activated sludge): 1,000 mg/l
Exposure time: 3 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 209

Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Persistence and degradability**Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Biodegradability : aerobic
Inoculum: activated sludge, non-adapted
Dissolved organic carbon (DOC)

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Result: Not readily biodegradable.
Biodegradation: 21 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

aerobic
Inoculum: Soil
Result: Not readily biodegradable.
Biodegradation: 15 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Stability in water : Degradation half life (DT50): 12 Months (25 °C) pH: 4 - 9
Method: No information available.
GLP: yes
Remarks: Fresh water

Bioaccumulative potential**Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Partition coefficient: n- : log Pow: 0.565 (68 °F / 20 °C)
octanol/water pH: 12
Method: Partition coefficient
GLP: yes

Mobility in soil**Components:****Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues:**

Distribution among : Koc: 141
environmental compartments Method: Directive 67/548/EEC, Annex V, C.19

Other adverse effects**Product:**

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 : An environmental hazard cannot be excluded in the event of
information unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

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

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Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

Not regulated as dangerous goods

IATA-DGR

Not regulated as dangerous goods

IMDG-Code

Not regulated as dangerous goods

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations**49 CFR**

Not regulated as dangerous goods

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 311/312 Hazards : Serious eye damage or eye irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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

DSL : All components of this product are on the Canadian DSL

AIIC : On the inventory, or in compliance with the inventory

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NZIoC : On the inventory, or 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

TSCA : All substances listed as active on the TSCA inventory

Inventories

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

TSCA - 5(a) Significant New Use Rule List of Chemicals

The following substance(s) is/are subject to a Significant New Use Rule:

Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues 68909-77-3 See 40 CFR § 721.10228

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

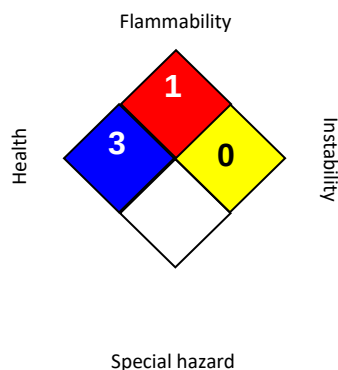
The following substance(s) is/are subject to TSCA 12(b) export notification requirements:

Ethanol, 2,2'-oxybis-, reaction products with ammonia, morpholine derivs. residues 68909-77-3

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH		3
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard

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THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

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